

**Article 29.—SOLID WASTE
MANAGEMENT****PART 1.—DEFINITIONS AND ADMINISTRATION
PROCEDURES**

28-29-1. (Authorized by and implementing K.S.A. 1981 Supp. 65-3406; effective Jan. 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979; amended May 1, 1982; revoked May 10, 1996.)

28-29-2. Variances. (a) *General Procedure.* If exceptional circumstances make strict conformity with these regulations impractical or not feasible, a person may submit a written request for a variance from these regulations. The department may grant a variance from these regulations and stipulate conditions and time limitations as necessary to comply with the intent of all applicable state and federal laws. The department shall review the variance request and notify the person within ninety (90) days of receipt that the application is approved, denied, or requires modification.

(b) *Experimental operations.* Variances may be granted to facilitate experimental operations intended to develop new methods or technology. Variances for experimental operations shall be considered only where significant health, safety, environmental hazards, or nuisances will not be created, and when a detailed proposal is submitted and accepted which sets forth the objectives, procedures, controls, monitoring, reporting, time frame, and other data regarding the experiment.

(c) *Restrictions.* Variances for experimental operations shall be limited to a maximum of two (2) years; however, the department may renew the variance for one or more additional two-year periods upon a showing by the person that the need for a variance continues to be valid. (Authorized by and implementing K.S.A. 1981 Supp. 65-3406; effective Jan. 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982.)

28-29-3. Definitions. (a) “Active area” means any solid waste disposal area that has received solid waste and has fewer than 12 inches of soil cover.

(b) “Agricultural waste” means solid waste resulting from the production of farm or agricultural products.

(c) “Air pollution” means the presence in the outdoor atmosphere of one or more air contami-

nants in such quantities and duration as is, or tends significantly to be injurious to human health or welfare, animal or plant life, or property, or would unreasonably interfere with the enjoyment of life or property.

(d) “Aquifer” means saturated soils and geologic materials that are capable of recharging a well within 24 hours and whose boundaries can be identified and mapped from hydrogeologic data. This term shall include all hydraulically connected aquifers.

(e) “Backyard composting” means a composting operation that does not distribute the finished compost for use off-site and that meets one of the following conditions:

(1) The materials are all compostable and are generated by no more than four single residences, or the equivalent of four single residences.

(2) The material being composted consists entirely of yard waste, and the volume of material being composted is less than 10 cubic yards.

(f) “Bulky waste” means items of refuse too large to be placed in refuse storage containers, including appliances, furniture, tires, large auto parts, motor vehicles, trees, branches, and stumps.

(g) “By-product” means a material produced without separate commercial intent during the manufacture or processing of other materials or mixtures.

(h) “Commercial waste” means all solid waste emanating from establishments engaged in business, including solid waste originating in stores, markets, office buildings, restaurants, shopping centers, and theaters.

(i) “Composting” means a controlled process of microbial degradation of organic material into a stable, nuisance-free, humus-like product. This term shall not include the following:

(1) Manure storage piles, whether turned to stabilize or not turned; and

(2) yard waste directly applied to agricultural land.

(j) “Composting area” means the area used for receiving, processing, curing, and storing compostable materials and compost.

(k) “Design period” means the period consisting of the operating life of the solid waste landfill facility and the postclosure care period.

(l) “Detection monitoring system” means a network of wells established to detect any releases of contaminants from a landfill unit.

(m) “Director” means the director of the divi-

sion of environment, Kansas department of health and environment.

(n) "Discarded material" means one of the following:

(1) Material that has been abandoned or disposed of; or

(2) a by-product or residual, when it is either in treatment or in storage or when it is used in a manner that constitutes disposal.

(o) "Disease vector" means rodents, flies, mosquitos, or other pests capable of transmitting disease to humans.

(p) "Disturbed area" means those areas within a facility that has been physically altered during waste disposal operations or during the construction of any part of the facility.

(q) "Existing unit" means a municipal solid waste disposal unit that is completely constructed and receiving waste before the appropriate date specified in K.A.R. 28-29-100.

(r) "Facility" means a site and all equipment and fixtures on a site used to process or dispose of a solid waste. A facility consists of the entire solid waste processing or disposal operation. All structures used in connection with the waste processing or disposal operation, including any structures used to facilitate the processing or disposal, shall be considered a part of the facility, including the following:

- (1) Solid waste disposal units;
- (2) buildings;
- (3) treatment systems;
- (4) processing and storage operations; and
- (5) monitoring stations.

(s) "Garbage" means the animal and vegetable waste resulting from the handling, processing, storage, packaging, preparation, sale, cooking, or serving of meat, produce, or other foods and shall include unclean containers.

(t) "Gas collection system" means a system of wells, trenches, pipes, and other related ancillary structures, including manholes, compressor housings, and monitoring installations, that collect and transport the gas produced in a solid waste landfill to one or more gas processing points. The flow of gas through such a system can be produced by naturally occurring gas pressure gradients or can be aided by an induced draft generated by mechanical means.

(u) "Gas venting system" means a system of wells, trenches, pipes, and other related structures that vents the gas produced in a solid waste landfill to the atmosphere.

(v) "Geomembrane" means a membrane with a very low permeability, which means approximately 1×10^{-12} cm/sec, that is used with a foundation of soil, rock, earth, or any other geotechnical, engineering-related material as an integral part of a human-made structure or system designed to limit the movement of liquid or gas in the system.

(w) "Geotextile" means any permeable textile used with soil, rock, earth, or any other geotechnical, engineering-related material as an integral part of a human-made structure or system designed to perform functions including any of the following:

- (1) Provide planar flow for drainage;
- (2) filter particulates from a liquid; or
- (3) serve as a cushion to protect geomembranes.

(x) "Groundwater" means that part of subsurface water in the ground that is in the zone of saturation.

(y) "Incineration" means the controlled process of burning solid, liquid, and gaseous combustible wastes for volume and weight reduction in facilities designed for that use.

(z) "Incinerator" means any device or structure used for the destruction or volume reduction of solid waste by combustion pursuant to disposal or salvaging operations.

(aa) "Land surveyor" means a person who has received a license to practice land surveying from the state board of technical professions pursuant to K.S.A. 74-7001 et seq., and amendments thereto.

(bb) "Leachate" means liquid that has been or is in direct contact with solid waste or the active area of a solid waste disposal unit.

(cc) "Licensed geologist" means a person who has received a license to practice geology from the Kansas state board of technical professions pursuant to K.S.A. 74-7001 et seq., and amendments thereto.

(dd) "Lift" means an accumulation of waste that is compacted into a unit and over which daily cover material is normally placed.

(ee) "Long-term care" means the maintenance of all appurtenances and systems installed or used in the containment of solid wastes and the maintenance of the effective performance of leachate or gas collection, treatment, and disposal systems installed for use during the postclosure care period at a solid waste disposal area or a solid waste processing facility.

(ff) "Mixed refuse" means a mixture of solid

wastes containing both putrescible and nonputrescible materials.

(gg) “Monofill” means a landfill in which 90 percent or more of the waste disposed is restricted to one specified waste.

(1) All other waste disposed of in a monofill shall meet both of the following requirements:

(A) The waste shall be associated with the process that produced the specified waste.

(B) The waste shall have characteristics similar to those of the specified waste and shall have similar and limited potential hazards to human health and the environment.

(2) Clean rubble, as defined in K.S.A. 65-3402 and amendments thereto, may be disposed of in any monofill and shall not be considered in calculating the percentage of specified waste in the monofill.

(hh) “National pollutant discharge elimination system” and “NPDES” shall have the meaning specified in K.A.R. 28-16-58.

(ii) “New facility” and “new unit” mean a municipal solid waste landfill (MSWLF), as defined in K.S.A. 65-3402 and amendments thereto, or a unit at a facility for which either of the following conditions applies:

(1) The MSWLF or unit is a permitted or unpermitted MSWLF or unit that has not accepted any waste before October 9, 1993.

(2) The MSWLF or unit is an existing MSWLF or unit whose lateral boundaries are increased after the effective date specified in K.A.R. 28-29-100.

(jj) “Nuisance” means either of the following situations, if caused by or a result of the management of solid wastes in violation of the solid waste statutes in chapter 65, article 24, or the solid waste regulations in article 29 of these regulations:

(1) A situation that is injurious to health or offensive to the senses or that obstructs the free use of property in a manner that interferes with the comfortable enjoyment of life or property; or

(2) a situation that adversely affects the entire community or neighborhood, or any substantial number of persons, even though the extent of the annoyance or damage inflicted on individuals is unequal.

(kk) “Official plan” means a comprehensive plan submitted to and approved by the secretary as provided in K.S.A. 65-3405, and amendments thereto.

(ll) “100-year, 24-hour storm” means a precip-

itation event of 24-hour duration with a one percent probability of occurring in any given year.

(mm) “On-site” means on the premises where solid waste generation occurs, including two or more pieces of property that are divided only by public or private rights-of-way and that are otherwise contiguous.

(nn) “Open burning” means the burning of any materials without all of the following characteristics:

(1) Control of combustion air to maintain adequate temperature for efficient combustion;

(2) containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion; and

(3) control of emission of the gaseous combustion products.

(oo) “Operating record” means a compilation of reports, plans, specifications, monitoring data, and other information concerning facility operations. The operating record shall be kept on-site or at an alternate, secure location specified in the operating plan, in accordance with these regulations.

(pp) “Operator” means the person or persons responsible for the operation and maintenance of a facility or part of a facility.

(qq) “Owner” means the person or persons who own a facility or part of a facility.

(rr) “Permit” means a written permit issued by the secretary that by its conditions may authorize the permittee to construct, install, modify, or operate a specified solid waste disposal area or solid waste processing facility.

(ss) “Permit area” and “permitted area” mean the entire approved horizontal and vertical area occupied by a permitted solid waste processing or disposal facility.

(tt) “Point of compliance” means a specified horizontal distance from the edge of a disposal unit’s planned design. The point of compliance shall be the point at which an owner or operator demonstrates compliance with the liner performance standard, if applicable, and with the groundwater protection standard.

(uu) “Processing of wastes” means the extraction of materials, transfer, volume reduction, conversion to energy, or other separation and preparation of solid waste for reuse or disposal.

(vv) “Professional engineer” means a person who has registered with and obtained a license to practice engineering from the state board of technical professions pursuant to K.S.A. 74-7001 et seq., and amendments thereto.

(ww) "Publicly owned treatment works (POTW)" means a treatment works that is owned by the United States of America, the state of Kansas, or a unit of local government. This definition shall include any devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastewater. The definition shall include sewers, pipes, and other conveyances only if they convey wastewater to a POTW.

(xx) "Putrescible wastes" means solid waste that contains organic matter capable of being decomposed by microorganisms and that is capable of attracting or providing food for birds and disease vectors.

(yy) "Qualified groundwater scientist" means a licensed geologist or professional engineer who has sufficient training and experience in groundwater hydrology and related fields. Sufficient training may be demonstrated by a professional certification or by the completion of an accredited university program that enables the individual to make sound professional judgments regarding groundwater monitoring, contaminant fate and transport, and corrective action.

(zz) "Resource recovery" means the recovery of material or energy from solid waste.

(aaa) "Run-off" means water resulting from precipitation that flows overland from any part of a facility, except active areas, before the water enters a defined stream channel, and any portion of the overland flow that infiltrates into the ground before the water reaches the stream channel.

(bbb) "Run-on" means any rainwater or surface water that flows onto any part of a facility.

(ccc) "Salvaging" means the controlled removal of reusable materials from solid waste.

(ddd) "Sanitary landfill" means a method of disposing of solid wastes on land without creating nuisances or hazards to the public health or safety or the environment at a permitted solid waste disposal area that meets the standards specified in K.A.R. 28-29-23.

(eee) "Scavenging" means the removal of materials from a facility or unit that is not salvaging.

(fff) "Significant modifications" means substantial alterations, changes, additions, or deletions to a facility, facility operations, facility ownership, or facility financial status that occur after permit issuance.

(ggg) "Small landfill" and "small arid landfill" mean a municipal solid waste landfill that has been granted an exemption from the design

requirements in K.A.R. 28-29-104, in accordance with K.A.R. 28-29-103.

(hhh) "Source-separated organic waste" means organic material that has been separated from noncompostable material at the point of generation and shall include the following wastes:

- (1) Vegetative food waste;
- (2) soiled or unrecyclable paper;
- (3) sewage sludge;
- (4) other wastes with similar properties, as determined by the department; and
- (5) yard waste in combination with these materials.

(iii) "Special waste" means any solid waste that, because of physical, chemical, or biological characteristics, requires special management standards due to concerns for owner or operator safety regarding handling, management, or disposal.

(jjj) "Static safety factor" means the ratio between resisting forces or moments in a slope and the driving forces or moments that can cause a massive slope failure.

(kkk) "Storage" means the containment of solid wastes in a manner that shall not constitute disposal or processing, under one of the following conditions:

(1) Precollection. Storage by the generator, on or adjacent to the premises, before initial collection. Under these regulations, precollection storage shall not require a processing facility permit.

(2) Postcollection. Storage by the processor or a collector, while the waste is awaiting processing or transfer to a disposal or recovery facility. Under these regulations, postcollection storage shall require a processing facility permit.

(lll) "Surface impoundment" means a natural topographic depression, a man-made excavation, or diked area into which flowing wastes, including liquid wastes and wastes containing free liquids, are placed. For the purposes of these solid waste regulations, a surface impoundment shall not be considered a landfill.

(mmm) "25-year, 24-hour storm" means a precipitation event of 24-hour duration with a four percent probability of occurring in any given year.

(nnn) "Unit" and "disposal unit" mean a discrete area at a permitted landfill that is used for the final disposal of solid waste. These terms shall include the following means of disposal:

- (1) Trench;
- (2) area fill; and
- (3) cut and cover.

(ooo) "Uppermost aquifer" means the first aquifer

uifer likely to be impacted by contamination from the facility. This term shall include the migration pathway to the aquifer and shall extend to the first demonstrated aquiclude. This term shall also include perched water tables, which are locally elevated water tables above a discontinuous low-permeability layer that is within a relatively higher-permeability layer.

(ppp) "Vegetative food waste" means food waste and food processing waste from materials including fruits, vegetables, and grains. Vegetative food waste shall not refer to animal products or by-products, including dairy products, animal fat, bones, and meat.

(qqq) "Vertical expansion" means an increase in the design capacity of an existing unit by increasing the final elevation limit of the unit.

(rrr) "Water pollution" means contamination or alteration of the physical, chemical, or biological properties of any waters of the state that creates a nuisance or that renders these waters harmful to public health, safety, or welfare; harmful to the plant, animal, or aquatic life of the state; or unsuitable for beneficial uses.

(sss) "Working face" means any part of a solid waste disposal area where waste is being disposed of.

(ttt) "Yard waste" means vegetative waste generated from ordinary yard maintenance, including grass clippings, leaves, branches less than 0.5 inches in diameter, wood chips and ground wood less than 0.5 inches in diameter, and garden wastes. (Authorized by and implementing K.S.A. 65-3406; effective Jan. 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982; amended Oct. 1, 1999; amended May 30, 2003.)

28-29-4. (Authorized by K.S.A. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; revoked May 1, 1982.)

28-29-5. (Authorized by K.S.A. 65-3406; effective Jan. 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979; revoked, E-82-8, April 10, 1981; revoked May 1, 1982.)

28-29-6. Permits and engineering plans.

(a) *Application for permits.* Every person desiring to obtain a permit shall file an application for a permit for the proposed solid waste disposal area or processing facility with the department at least

thirty (30) days before the date the person wishes to start construction, alteration, or operation of the disposal area or processing facility. The application shall be on forms furnished by the department.

(b) *Design plans and engineering reports.*

(1) Design and closure plans and engineering reports required under these regulations shall bear the seal and signature of a professional engineer licensed to practice in Kansas.

(2) *Waiver.* Plans, designs, and relevant data for the construction of the following solid waste disposal areas and processing facilities, need not be prepared by a professional engineer provided that a review of these plans is conducted by a professional engineer licensed to practice in Kansas:

(A) Solid waste processing facilities when the equipment is originally manufactured for those purposes and installation is supervised by the vendor, or when the equipment requires only fencing, buildings, and connection to utility lines to be operational;

(B) Construction and demolition landfills; and

(C) Solid waste disposal areas considered by the department to be located in secure geological formations, which are a part of a solid waste management system established pursuant to K.S.A. 65-3401 *et seq.*, and which are expected to receive less than one hundred (100) tons of solid waste annually.

(c) *Permit considerations.* Any permit issued by the secretary shall, where appropriate, be reviewed with respect to all responsibilities within the department.

(d) *Transfer of permits.* Before any assignment, sale, conveyance, or transfer of all or any part of the property upon which a solid waste processing facility, or solid waste disposal area is or has been located, and before any change in the responsibility of operating a processing facility or disposal area is made, the permittee shall notify the department, in writing, of the intent to transfer title or operating responsibility, at least thirty (30) days in advance of the date of transfer. The person to whom the transfer is to be made shall not operate the solid waste processing facility or disposal area until the secretary issues a permit to that person. The person to whom the transfer is to be made shall submit the following:

(1) A permit application and plans, maps, and data as required by subsection (a) of this regulation;

(2) Plans satisfactory to the department for correcting any existing permit violations; and

(3) Substantiation in writing that the applicant has copies of all approved maps, plans, and specifications relating to the solid waste processing facility or disposal area.

(e) *Conformity with official plan.* Permits shall not be issued by the secretary until the applicant has secured, from the board of county commissioners or from the mayor of an incorporated city having an official plan, certification that the proposed facility is consistent with the official plan. This approval shall not be required when the official plan does not provide for management of the solid waste(s) to be processed or disposed.

(f) *Reopening closed sites or facilities.* Any person proposing to reopen, excavate, disrupt, or remove any solid waste from any solid waste disposal area where operations have been terminated shall secure a new permit as specified in paragraph (a) of this regulation. Applications for a permit shall include, where applicable, an operational plan stating the area involved, lines and grades defining limits of excavation, estimated number of cubic yards of material to be excavated, location where excavated solid waste is to be deposited, the estimated time required for excavation, and a plan for restoring the site.

(g) *Emergency provisions.* In emergency situations involving solid waste which requires storage, transportation, or disposal on a one-time basis or other special cases where strict adherence to these regulations would result in undue hardships or unnecessary delays, the department can prescribe on a case-by-case basis, the procedures and conditions necessary for the safe and effective management of the wastes. The generator shall not take action in these cases except as immediately necessary for the protection of human health or the environment, until the action is approved by the department. (Authorized by K.S.A. 1981 Supp. 65-3406; implementing K.S.A. 1981 Supp. 65-3406, 65-3407; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982.)

28-29-6a. Public notice of permit actions, public comment period, and public hearings. (a) Public notice and comment period.

(1) Scope and timing. A public notice shall be given by the department when a municipal solid waste landfill permit action has been proposed under K.A.R. 28-29-6 or when a public hearing has

been scheduled pursuant to subsection (b) of this regulation.

(A) Public notice shall be required for a draft permit or any proposed significant modifications to a permit by the department.

(B) Public notice shall be required for any public hearing on a permit action.

(C) A public notice shall not be required when suspension, denial or revocation, or non-significant modification of a permit is proposed by the department.

(D) A public notice may describe more than one permit action or hearing.

(E) Each public notice shall be published not less than 30 days prior to the hearing or proposed action.

(2) Procedures.

(A) Each public notice shall be published in the Kansas register.

(B) Where a proposed action or hearing may generate significant local interest, a public notice shall also be published in a newspaper having major circulation in the vicinity of the proposed action or hearing.

(3) Contents of public notice. Each public notice issued under this regulation shall contain the following information:

(A) The name and address of the office processing the permit action for which notice is being given;

(B) the name and location of the facility for which the permit action is proposed;

(C) a map of the facility for which the permit action is proposed;

(D) a brief description of the activity to be conducted at the facility for which the permit action is proposed;

(E) the name, address, and telephone number of the person from whom interested persons may obtain or review additional information;

(F) the time and place of any hearing that will be held; and

(G) a brief description of the comment procedures outlined in subsections (b) and (c) of this regulation.

(b) Public comments. During the public comment period provided in subsection (a) of this regulation, any interested person may submit written comments. All comments, except those concerning determinations by local government units that the proposed permit action conforms with the official plan, shall become a part of the permit rec-

ord and shall be considered in making a final decision on the proposed permit action.

(c) Public hearings. If the department determines there is sufficient local interest in a proposed permit action, a public hearing may be scheduled. All written and verbal comments received during a public hearing provided in subsection (a) of this regulation shall become a part of the permit record and be considered in making a final decision on the proposed permit action.

(d) Response to comments. A response to comments shall be issued at the time any final permit decision is issued. The response shall be available to the public and shall:

(1) Specify what, if any, changes were made to the proposed action as a result of public comment; and

(2) briefly respond to any significant comments received during the public comment period. (Authorized by K.S.A. 65-3406; amended by L. 1993, Ch. 274, Sec. 2; implementing K.S.A. 65-3401; effective March 21, 1994.)

28-29-7. Conditions of permits. (a) When granting a permit, the secretary shall consider and stipulate: the types of solid wastes which may be accepted or disposed, special operating conditions, procedures, and changes necessary to comply with these and other state or federal laws and regulations.

(b) When the department determines that a solid waste has or may have value as a recoverable resource, a permit may require or may be modified to require segregation of the materials, processing, separate disposal, and marking to allow future retrieval of the materials.

(c) The department may specify conditions or a date upon which each permit will expire. (Authorized by K.S.A. 1981 Supp. 65-3406; implementing K.S.A. 1981 Supp. 65-3406, 65-3407; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982.)

28-29-8. Modifications of permits. (a) The permittee shall notify the department in writing at least thirty (30) days before any proposed modification of operation or construction from that described in the plan of operation or permit. The permittee shall not proceed with the modification until the department provides written approval.

(b) The department may at any time modify a permit or any term or condition of a permit to

include: special conditions required to comply with the requirements of these regulations; to avoid hazards to public health, or the environment or to abate a public nuisance; or to include modifications proposed by the permittee and approved by the department. Permits may be modified when:

(1) The permittee is not able to comply with the terms or conditions of the permit due to an act of God, a strike against someone other than the permittee, material shortage, or other conditions over which the permittee has little or no control; or

(2) New technology that can provide significantly better protection for health and environmental resources of the state becomes available.

(c) The permittee shall take prompt action to comply with the new special conditions, or within fifteen (15) days of receipt of notification of the new special conditions, request a hearing before the secretary in accordance with K.S.A. 65-3412. (Authorized by and implementing K.S.A. 1981 Supp. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982.)

28-29-9. Suspension of permits. (a) A permit shall be suspended by the department when in the opinion of the secretary this action is necessary to protect the public health or welfare, or the environment. The secretary shall notify the permittee of the suspension and the effective date. At the time of giving this notice, the secretary shall identify items of noncompliance with the requirements of these regulations or with conditions of the permit and shall specify deficiencies which the permittee shall correct, actions which the permittee shall perform, and the date or dates by which the permittee shall submit a plan detailing corrective action taken or to be taken in order to achieve compliance.

(b) The suspension shall remain in effect until the deficiencies are corrected to the satisfaction of the secretary or until the secretary makes a final determination based on the outcome of a hearing requested by the permittee under the provision of K.S.A. 65-3412 or amendments of that statute. The determination may result in termination of the suspension, continuation of the suspension, or modification or revocation of the permit.

(c) Permits shall be suspended for failure to pay the permit fee required by K.S.A. 65-3407 or amendments of that statute. (Authorized by

K.S.A. 1981 Supp. 65-3406; implementing K.S.A. 1981 Supp. 65-3406, 65-3407; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982.)

28-29-10. Denial or revocation of permits. (a) A permit may be denied or revoked for any of the following reasons:

(1) Misrepresentation or omission of a significant fact by the permittee either in the application for the permit or in information subsequently reported to the department;

(2) Improper functioning or operation of processing facility or the disposal area that causes pollution or degradation of the environment or the creation of a public health hazard or a nuisance;

(3) Violation of any provision of K.S.A. 65-3401 *et seq.* or these rules and regulations or other restrictions set forth in the permit or in a variance;

(4) Failure to comply with the official plan; or

(5) Failure to comply with an order or a modification to a permit issued by the secretary.

(b) Any person aggrieved by the denial or revocation of a permit may request a hearing under the provision of K.S.A. 65-3412 or amendments of that statute. (Authorized by K.S.A. 1981 Supp. 65-3406; implementing K.S.A. 1981 Supp. 65-3406, 65-3407; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982.)

28-29-11. (Authorized by K.S.A. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; revoked, E-82-8, April 10, 1981; revoked May 1, 1982.)

28-29-12. Notification of closure, closure plans, and long-term care. (a) Notification of closure. All permittees shall notify the department in writing at least 60 days before closure.

(b) Closure plans. Persons desiring to obtain a permit shall file a site closure plan at the time a permit application is submitted. The closure plan shall delineate the finished construction of the processing facility or disposal area after closure. Closure plans for disposal areas shall also provide for long-term care when wastes are to remain at the area after closure. The plan shall be updated at the time of permit renewal or at the time notice of modification is submitted in accordance with K.A.R. 28-29-8(a), or at the time the notice of closure is submitted.

(c) If wastes are to remain at the disposal area after closure, the closure plan may be required by

the department to be prepared by a professional engineer licensed to practice in Kansas. Upon completion of all the procedures provided for in the closure plan, the engineer shall certify that the disposal area was closed in accordance with the plan.

(d) Closure plan contents. The closure plan shall include the following when determined applicable by the secretary:

(1) Plans for the final contours, type and depth of cover material, landscaping, and access control;

(2) final surface water drainage patterns and runoff retention basins;

(3) plans for the construction of liners, leachate collection and treatment systems, gas migration barriers or other gas controls;

(4) cross sections of the site that delineate the disposal or storage locations of wastes. The cross sections shall depict liners, leachate collection systems, the waste cover, and other applicable details;

(5) plans for the post-closure operation and maintenance of liners, leachate and gas collection and treatment systems, cover material, runoff retention basins, landscaping, and access control;

(6) removal of all solid wastes from processing facilities;

(7) plans for monitoring and surveillance activities after closure;

(8) recording of a detailed site description, including a plot plan, with the department. The plot plan shall include the summaries of the logs or ledgers of waste in each cell, depth of fill in each cell, and existing conditions;

(9) a financial plan for utilization of the surety bond or cash bond required by K.S.A. 65-3407; and

(10) an estimate of the annual post-closure and maintenance costs.

(e) Long-term care. The owner of a solid waste disposal area, where the wastes are not removed as a part of the closure plan, shall provide long-term care for a period of at least 30 years following approval by the department of completion of the procedures specified in the closure plan. At the time of application for, or at the time of closure of, a solid waste disposal area permit, additional periods of long-term care may be specified by the secretary as the secretary deems necessary to protect public health or welfare, or the environment. (Authorized by K.S.A. 1996 Supp. 65-3406, as amended by L. 1997, Ch. 139, Sec. 1; implementing K.S.A. 1996 Supp. 65-3406, as amended

by L. 1997, Ch. 139, Sec. 1, and 65-3407, as amended by L. 1997, Ch. 140, Sec. 4; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982; amended July 10, 1998.)

28-29-13. (Authorized by K.S.A. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; revoked, E-82-8, April 10, 1981; revoked May 1, 1982.)

28-29-14. (Authorized by K.S.A. 65-3406; effective Jan. 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979; revoked, E-82-8, April 10, 1981; revoked May 1, 1982.)

28-29-15. (Authorized by K.S.A. 65-3406, 65-3407; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; revoked May 1, 1982.)

28-29-16. Inspections. (a) The secretary or any duly authorized representative of the secretary, at any reasonable hour of the day, having identified themselves and giving notice of their purpose, may:

(1) Enter a factory, plant, construction site, solid waste disposal area, solid waste processing facility, or any environment where solid wastes are generated, stored, handled, processed, or disposed, and inspect the premises and gather information of existing conditions and procedures;

(2) Obtain samples of solid waste from any person or from the property of any person, including samples from any vehicle in which solid wastes are being transported;

(3) Drill test wells on the affected property of any person holding a permit or liable for a permit under K.S.A. 65-3407 or amendments of that statute and obtain samples from the wells;

(4) Conduct tests, analyses, and evaluations of solid waste to determine whether the requirements of these regulations are otherwise applicable to, or violated by, the situation observed during the inspection;

(5) Obtain samples of any containers or labels; and

(6) Inspect and copy any records, reports, information, or test results relating to wastes generated, stored, transported, processed, or disposed.

(b) If during the inspection, unidentified or unpermitted waste storage or handling procedures are discovered, the department's representative may instruct the operator of the facility to

retain and properly store solid or hazardous wastes, pertinent records, samples, and other items. These materials shall be retained by the operator until the identification and handling of the waste is approved by the department.

(c) When obtaining samples, the department's representative shall allow the facility operator to collect duplicate samples for separate analysis. Analytical data that might reveal trade secrets shall be treated as confidential by the department, when requested by the owner. (Authorized by and implementing K.S.A. 1981 Supp. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982.)

28-29-17. (Authorized by K.S.A. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; revoked, E-82-8, April 10, 1981; revoked May 1, 1982.)

28-29-17a. This regulation shall be revoked on and after February 24, 2000. (Authorized by K.S.A. 1983 Supp. 65-3406; implementing K.S.A. 1983 Supp. 65-3406, 65-3407; effective, E-82-8, April 10, 1981; effective May 1, 1982; amended, T-84-41, Dec. 21, 1983; amended May 1, 1984; revoked Feb. 24, 2000.)

28-29-17b. This regulation shall be revoked on and after February 24, 2000. (Authorized by K.S.A. 1983 Supp. 65-3406; implementing K.S.A. 1983 Supp. 65-3406, 65-3407; effective May 1, 1982; amended, T-84-41, Dec. 21, 1983; amended May 1, 1984; revoked Feb. 24, 2000.)

28-29-18. (Authorized by K.S.A. 1983 Supp. 65-3406; implementing K.S.A. 1983 Supp. 65-3406, 65-3407; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982; amended, T-84-41, Dec. 21, 1983; amended May 1, 1984; revoked March 22, 2002.)

28-29-19. Monitoring required. As a condition for issuing a permit, the secretary may require the approval, installation, and operation of environmental quality monitoring systems before the acceptance of solid wastes for storage, processing, or disposal. Approval of the monitoring system(s) will be based on the following:

(a) The location of monitoring wells, air monitoring stations, and other required sampling points;

(b) Plans and specifications for the construction of the monitoring systems;

(c) Frequency of sampling; and

(d) Analyses to be performed. (Authorized by K.S.A. 1981 Supp. 65-3406; implementing K.S.A. 1981 Supp. 65-3406, 65-3407; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982.)

28-29-20. Restrictive covenants and easements. (a) Permitted solid waste disposal areas. Each owner of a solid waste disposal area that is required to have a permit and where wastes will remain at the solid waste disposal area after closure may be required by the secretary to execute a restrictive covenant or easement, or both. The restrictive covenant with the register of deeds' stamp or the easement, or both, shall be submitted to the department before the permit is issued.

(b) Solid waste disposal areas without a permit. Each owner of a solid waste disposal area approved by the secretary under K.S.A. 65-3407c, and amendments thereto, may be required by the secretary to execute a restrictive covenant.

(c) Restrictive covenant. If required, the owner shall execute and file with the county register of deeds a restrictive covenant to run with the land that fulfills the following requirements:

(1) Covers all areas that have been or will be used for waste disposal;

(2) specifies the location of the solid waste disposal area. Acceptable methods to determine the location shall include the following:

(A) Obtaining a legal description by measuring from the property boundaries;

(B) obtaining a legal description by measuring from a permanent survey marker or benchmark; and

(C) obtaining the latitude and longitude, accurate to within five meters, using a global positioning system;

(3) specifies the uses that may be made of the solid waste disposal area after closure;

(4) requires that use of the property after closure be conducted in a manner that preserves the integrity of waste containment systems designed, installed, and used during operation of the solid waste disposal areas, or installed or used during the postclosure maintenance period;

(5) requires the owner or tenant to preserve and protect all permanent survey markers and benchmarks installed at the solid waste disposal area;

(6) requires the owner or tenant to preserve and protect all environmental monitoring stations installed at the solid waste disposal area;

(7) requires subsequent property owners or tenants to consult with the department during planning of any improvement to the site and to receive approval from the department before commencing any of the following:

(A) Excavation or construction of permanent structures;

(B) construction of drainage ditches;

(C) alteration of contours;

(D) removal of waste materials stored on the site;

(E) changes in vegetation grown on areas used for waste disposal;

(F) production, use, or sale of food chain crops grown on land used for waste disposal; or

(G) removal of security fencing, signs, or other devices installed or used to restrict public access to waste storage or solid waste disposal areas; and

(8) provides terms whereby modifications to the restrictive covenant or other land uses may be initiated or proposed by property owners.

(d) Easement. If required, the owner shall execute an easement allowing the secretary, or the secretary's designee, to enter the premises to perform any of the following:

(1) Complete items of work specified in the site closure plan;

(2) perform any item of work necessary to maintain or monitor the area during the postclosure period; or

(3) sample, repair, or reconstruct environmental monitoring stations constructed as part of the site operating or postclosure requirements.

(e) Conveyance of easement, title, or other interest to real estate. Each offer or contract for the conveyance of easement, title, or other interest to real estate used for the long-term storage or disposal of solid waste shall contain a complete disclosure of all terms, conditions, and provisions for long-term care and subsequent land uses that are imposed by these solid waste regulations or the solid waste disposal area permit. The conveyance of title, easement, or other interest in the property shall not be consummated without adequate and complete provisions for the continued maintenance of waste containment and monitoring systems.

(f) Permanence. All covenants, easements, and other documents related to this regulation shall

be permanent, unless extinguished by agreement between the property owner and the secretary.

(g) Fees. All document-recording fees shall be paid by the property owner.

(h) Federal government applicants and owners.

(1) For federal government applicants and owners, the term "restrictive covenant" shall be replaced with "notice of restrictions" throughout this regulation.

(2) The restrictions shall be recorded in the base master plans or similar documents.

(3) If property that is owned by the federal government and that has a notice of restrictions filed according to this regulation is transferred to an entity other than the federal government, at the time of transfer the owner shall file a restrictive covenant that meets the requirements of this regulation. (Authorized by K.S.A. 65-3406; implementing K.S.A. 65-3406, 65-3407; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982; amended May 30, 2003.)

28-29-20a. Laboratory certification. All monitoring analyses required under K.A.R. 28-29-19, and amendments to it, shall be conducted by a laboratory certified or approved by the department to perform these analyses. Laboratories desiring to be certified to perform these analyses shall comply with all conditions, procedures, standards, and fee requirements specified in K.A.R. 28-15-35 and 28-15-37, and amendments to them. (Authorized by and implementing K.S.A. 1981 Supp. 65-3406; effective, E-82-8, April 10, 1981; effective May 1, 1982.)

PART 2.—STANDARDS FOR MANAGEMENT OF SOLID WASTES/COMPOSTING

28-29-21. Storage of solid wastes. (a) *General.* The owner or occupant or both of any premise, business establishment, or industrial plant shall provide sanitary storage for all solid waste not classified as hazardous wastes produced on his or her property which meets standards set forth in these regulations and the official plan for the area. All solid waste shall be stored so that it: does not attract disease vectors; does not provide shelter or a breeding place for disease vectors; does not create a health or safety hazard; is not unsightly; and the production of offensive odors is minimized. Each premise shall be provided with a sufficient number of acceptable containers to

accommodate all solid waste materials other than bulky wastes that accumulate on the premises between scheduled removals of these materials. On premises where the quantity of solid wastes generated is sufficient to make the use of individual storage containers impractical, bulk containers may be used for storage of refuse. The bulk container may be equipped with compaction equipment and shall be a size, design, and capacity compatible with the collection equipment. Containers shall be constructed of durable metal or plastic material, be easily cleaned, and be equipped with tight-fitting lids or doors that can be easily closed and opened.

(b) *Specific storage standards.*

(1) Garbage and putrescible wastes shall be stored in:

(A) Rigid containers that are durable, rust resistant, nonabsorbent, water tight, and rodent proof. The container shall be easily cleaned, fixed with close-fitting lids, fly-tight covers, and provided with suitable handles or bails to facilitate handling;

(B) Rigid containers equipped with disposable liners made of reinforced kraft paper or polyethylene or other similar material designed for storage of garbage;

(C) Nonrigid disposable bags designed for storage of garbage. The bag shall be provided with a wallhung or free standing holder which supports and seals the bag; prevents insects, rodents, and animals from access to the contents; and prevents rain and snow from falling into the bag; or

(D) Other types of containers meeting the requirements of 16 Code of Federal Regulations Chapter II Subchapter B, part 1301 in effect June 13, 1977, and paragraph (a) of this regulation and that are acceptable to the collection agency.

(2) Mixed refuse. When putrescible wastes and nonputrescible refuse are stored together, the container shall meet the standards and requirements of paragraph (b)(1) of this regulation.

(3) Nonputrescible bulky wastes. The wastes shall be stored temporarily in any manner that does not create a health hazard, fire hazard, rodent harborage, or permit any unsightly conditions to develop, and is in accordance with any locally adopted regulations. (Authorized by and implementing K.S.A. 1981 Supp. 65-3406; effective Jan. 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982.)

28-29-22. Standards for collection and transportation of solid wastes. (a) Frequency of collection. Solid waste, excluding bulky wastes, shall be removed from the storage containers on residential premises and places of public gathering in accordance with these regulations at least once each week. Garbage and putrescible materials shall be removed from commercial or industrial properties as often as necessary to prevent nuisance conditions but at least once a week. Trash and other combustible materials, free of putrescible material, shall be removed from commercial and industrial properties as often as is necessary to prevent overfilling of the storage facilities or the creation of fire hazards. Bulky wastes, free of putrescible wastes, shall be removed from properties as often as necessary to prevent nuisance conditions from occurring.

(b) Collection equipment. All vehicles and equipment used for collection and transportation of solid waste shall be designed, constructed, maintained, and operated in a manner that will prevent the escape of any solid, semi-liquid, or liquid wastes from the vehicle or container. Collection vehicles shall be maintained and serviced periodically, and should receive periodic safety checks. Safety defects in a vehicle shall be repaired before the vehicle is used.

(c) Solid waste shall not be stored after collection in a collection vehicle for more than 12 hours unless the vehicle is parked in an area in which the land use is predominately industrial or light industrial. Solid wastes shall not be stored overnight in a collection vehicle parked in an area in which the land use is predominantly residential.

(d) Solid wastes shall not be unloaded from any collection vehicle unless the collection vehicle is a satellite vehicle unloading into a larger vehicle or the unloading point is a permitted processing facility, transfer station or disposal area, except the unloading may be done to facilitate repairs, to extinguish a fire, or for other emergency. When a vehicle is unloaded due to a emergency situation solid waste shall be reloaded and removed promptly, after the emergency no longer exists.

(e) The person operating the collection system shall provide for prompt cleanup of all spillages caused by the collection operation.

(f) The person operating the collection system shall provide for prompt collection of any waste materials lost from the collection vehicles along the route to a disposal area or processing facility. (Authorized by and implementing K.S.A. 1981

Supp. 65-3406; effective Jan. 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982.)

28-29-23. Standards for solid waste processing facilities and disposal areas. All solid waste disposal areas and solid waste processing facilities shall be located, designed, operated and maintained in conformity with the following standards: (a) *Acceptable methods of disposal.* Nonhazardous solid wastes, industrial solid wastes, and residues from solid waste processing facilities shall be disposed of in a sanitary landfill. Nonputrescible rubble and demolition waste material such as brick, mortar, broken concrete, and similar materials produced in connection with the construction or demolition of buildings or other structures, may be disposed of at a construction and demolition landfill.

(b) *Acceptable methods for processing.* Combustible solid wastes may be burned in incinerators that conform with the provisions of the air quality control act, K.S.A. 65-3001 *et seq.* and the regulations adopted under those statutes. Solid wastes may be shredded, separated, and consolidated at shredding, separation, and transfer stations for which a permit has been issued by the secretary. Animal manures, sludges, and solid wastes with high organic content may be processed into compost at an approved composting plant for which a permit has been issued by the secretary.

(c) *Planning and design.* Planning, design, and operation of any solid waste processing facility or disposal area, including, but not limited to, sanitary landfills, incinerators, compost plants, transfer stations, and other solid waste disposal areas or processing facilities, shall conform with appropriate design and operation standards of the department.

(d) *Location.* Location of all solid waste disposal areas and solid waste processing facilities shall conform to applicable state laws, and county or city zoning regulations and ordinances. All locations for solid waste disposal areas and processing facilities shall be reviewed and approved by the department before any site development is started. Solid waste disposal areas or processing facilities shall not result in the destruction or adverse modification of the critical habitat of endangered or threatened species or cause or contribute to the taking of any endangered or threatened

species as defined by K.S.A. 35-501 *et seq.* and K.A.R. 23-17-2. Sites disposing of putrescible wastes shall not be located in areas where the attraction of birds can cause a significant bird hazard to low flying aircraft. A minimum separation of twenty-five (25) feet shall be maintained between a disposal operation and any pipeline, underground utility, or electrical transmission line easement. Sanitary landfills shall not be located within the one hundred (100) year frequency floodplain unless protected by flood control levees and other appurtenances designed to prevent washout of solid waste from the site.

(e) *Access roads.* Access roads to the disposal area or processing facility shall be of all-weather construction and negotiable at all times by trucks and other vehicles. Load limits on bridges and access roads shall be sufficient to support all traffic loads which will be generated by use of the area or facility.

(f) *Reports required.* Operators of all solid waste disposal areas and processing facilities shall maintain suitable records of volumes or tonnage of solid wastes received, land area used, population served, area served, and any other information required by the conditions of the permit. All information shall be summarized and reported to the department on forms furnished by the department.

(g) *Air quality.* The operator of every solid waste disposal area or solid waste processing facility shall conform to all applicable provisions of K.S.A. 65-3001 *et seq.*, any regulations adopted under those statutes, and any local regulations pertaining to air quality.

(h) *Communication.* Two-way communications shall be available to all solid waste processing facilities or disposal areas.

(i) *Fire protection.* Arrangements shall be made for fire protection services when a fire protection district or other public fire protection service is available. When this service is not available, practical alternate arrangements shall be provided at all sites. In case of accidental fires at the site, the operator shall be responsible for initiating and continuing appropriate fire fighting methods until all smoldering, smoking, and burning ceases. All disruption of finished grades, or covered or completed surfaces, shall be covered and regraded upon completion of fire fighting activities.

(j) *Limited access.* Access to a solid waste disposal area or processing facility shall be limited to hours when an attendant or operating personnel

are at the site. A gate or barrier and fencing approved by the department shall be erected to prevent access to the solid waste disposal area or processing facility during hours when the area or facility is closed. Access by unauthorized vehicles or pedestrians shall be prohibited.

(k) *Hours of operation.* Hours of operation and other limitations shall be prominently posted at the entrance of the disposal area or facility.

(l) *Salvage.* Salvage or reclamation of materials shall be permitted only when facilities specifically designed for salvaging or processing solid wastes are provided, and when the salvage materials are controlled to prevent interference with prompt, sanitary disposal of solid wastes. All salvage operations shall be conducted in a manner that will not create a nuisance.

(m) *Safety.* An operational safety program approved by the department shall be provided for employees at solid waste processing facilities and disposal areas.

(n) *Disease vector control.* Solid waste processing facilities and disposal areas shall be operated in a manner which will prevent the harborage or breeding of insects or rodents. Whenever supplemental disease vector control measures are necessary, these measures shall be promptly carried out.

(o) *Aesthetics.* Odors and particulates, including dust and litter, shall be controlled by daily application of cover material, sight screening or other means to prevent damage or nuisance. Construction and demolition landfills or other solid waste disposal areas receiving only nonputrescible waste materials may apply cover material at a less frequent rate if approved by the department.

(p) *Gas control.* The concentration of explosive gasses generated by the decomposition of solid waste disposed of on the site shall not exceed 25 percent of the lower explosive limit in on site structures (excluding gas control or recovery system components) or at facility property line. As used in this section "lower explosive limit" means the lowest percent by volume of a mixture of methane which will propagate a flame in air at 25° C and atmospheric pressure. Toxic or asphyxiating gases in concentrations harmful to humans, animals, or plant life shall not be allowed to migrate off site or accumulate in facility structures.

(q) *Water pollution.* Solid waste processing facilities and disposal areas, which include a point source of discharge of pollutants or solid wastes to off-site surface waters, shall comply with the

terms of a permit issued under K.S.A. 65-164 *et seq.* Facilities shall be designed to prevent non-point source pollution discharges violating applicable legal requirements implementing the Kansas statewide water quality management plan in effect on November 1, 1981 approved under section 208 of Public Law 92-500 (the Clean Water Act) as amended. Solid waste disposal areas and processing facilities shall be designed and operated so as to prevent a discharge of dredge or fill material that is in violation of section 404 of PL 92-500 (the clean water act), as in effect on November 1, 1981. Solid waste shall not be placed in unconfined waters which are subject to free movement on the surface, in the ground or within a larger body of water. If ground water which passes beneath a disposal facility is currently used as a public drinking water supply or is designated by the state of Kansas for future use as a drinking water supply, the naturally occurring ground water quality beyond the disposal site property boundary shall not be degraded. If ground water which passes beneath a disposal area or processing facility is currently used or designated by the state for purposes other than as a drinking water supply, the ground water beyond the disposal area property boundary shall be maintained at a quality as specified in the disposal area permit.

(r) *Maps required.* The operator shall maintain a log of commercial or industrial solid wastes received including sludges, liquids, or barreled wastes. The log shall indicate the source and quantity of waste and the disposal location. The areas used for disposal of these wastes and other large quantities of bulk wastes shall be clearly shown on a map and referenced to the boundaries of the tract or other permanent markings.

(s) *Disposal of sewage and industrial liquids or sludges.* Sewage or industrial solid waste liquids or sludges shall not be disposed in a sanitary landfill designed for the disposal of mixed refuse until the department has been notified and specific arrangements for handling the wastes have been approved by the department.

(t) *Disposal of hazardous waste.* Hazardous waste shall not be disposed of in a sanitary landfill. For the purposes of this subsection, "hazardous waste" means any waste determined by the secretary, under section 1 of chapter 251 of the 1981 session laws of Kansas, to be a hazardous waste and listed by the secretary as a hazardous waste in K.A.R. 28-31-3.

(u) The provisions of 40 Code of Federal Reg-

ulations Part 257.3-5 (application to land used for food chain crops), as in effect on September 23, 1981, and part 257.3-6 (disease), as in effect on September 23, 1981, are incorporated by reference. (Authorized by and implementing K.S.A. 1981 Supp. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982.)

28-29-23a. Standards for solid waste transfer stations. (a) Applicability. Each solid waste transfer station shall be subject to the requirements of this regulation.

(b) Design requirements.

(1) Each solid waste transfer station processing, tipping, sorting, storage and compaction area shall be subject to the following design requirements, unless an alternate design is approved by the director.

(A) Each processing, tipping, sorting, storage and compaction area shall be located in an enclosed building or covered area.

(B) Each unloading area shall be of adequate size and design to allow for:

(i) efficient unloading from collection vehicles; and

(ii) unobstructed movement of vehicles.

(C) Each unloading and loading area shall be constructed of concrete or asphalt paving material.

(D) Each solid waste transfer station shall have sufficient capacity to store two days worth of solid waste in the event of an interruption in transportation or disposal service. The capacity of any trailer parked within the boundaries of the permitted site may be included as a part of the two day capacity.

(E) Each solid waste transfer station shall be large enough to segregate special wastes, including medical waste and asbestos, if special wastes will be managed at the transfer station.

(2) Each solid waste transfer station structure shall be subject to the following design requirements, unless an alternate design is approved by the director.

(A) Each enclosed structure shall be equipped with an exhaust system capable of removing accumulations of noxious or flammable gases.

(B) Each structure shall be constructed of materials that will not absorb odors or liquids from the waste.

(C) Each structure shall have a main doorway

and roof of sufficient height to allow trucks that will routinely utilize the transfer station to unload.

(3) Each solid waste transfer station access road shall be subject to the following requirements.

(A) Each access road shall be designed to accommodate expected traffic flow in a safe and efficient manner.

(B) Each access road shall be constructed with a road base that is capable of withstanding expected loads.

(C) Each on-site road shall be passable by loaded collection and transfer vehicles in all weather conditions.

(4) Each solid waste transfer station shall be subject to the following general requirements.

(A) The design of each transfer station shall minimize wind-blown litter.

(B) Control of stormwater shall be provided.

(C) Weighing or measuring capabilities shall be provided for all solid waste processed at the facility.

(D) Each owner or operator of a solid waste transfer station shall evaluate the feasibility of constructing an area at the transfer station site so that the following activities could be conducted:

- (i) storage of white goods;
- (ii) separation of materials for recycling;
- (iii) separation of materials for composting; or
- (iv) other solid waste management activities.

(E) Water shall be provided in sufficient quantity and pressure to wash down the unloading, loading, and storage areas of the transfer station.

(F) Collection of washdown water and stormwater contacting solid waste shall be provided.

(G) The following amenities shall be provided for transfer station workers:

- (i) sanitary facilities;
- (ii) drinking water; and
- (iii) handwashing water.

(c) Operating requirements. Each solid waste transfer station owner or operator shall comply with the following operating requirements.

(1) Wastes accepted at the solid waste transfer station shall consist of residential waste and commercial waste.

(2) The following wastes shall not be accepted at any solid waste transfer station unless handling plans have been specifically approved by the department:

- (A) medical waste;
- (B) asbestos waste; or
- (C) other special wastes.

(3) Any solid waste passing through a solid waste transfer station shall be ultimately treated or disposed of at:

(A) a solid waste management facility authorized by the department if the facility is located in Kansas; or

(B) a solid waste management facility authorized by the appropriate governmental agency if the facility is located in another state.

(4) Each access point to a solid waste transfer station shall have a sign posted that states:

(A) the hours of operation of the transfer station;

(B) the types of solid waste that shall be accepted at the transfer station;

(C) the types of wastes that shall not be accepted at the transfer station;

(D) the name, address and telephone number of the transfer station owner and operator; and

(E) the telephone number of an emergency contact person available during non-operating hours.

(5) Each time the solid waste transfer station is open, an attendant shall be on duty.

(6) Provisions shall be made to prevent vehicles from backing into the receiving pits while unloading.

(7) Access to the facility by unauthorized persons shall be limited each time the station is closed.

(8) Procedures for preventing unauthorized receipt of regulated hazardous wastes as defined pursuant to K.A.R. 28-31-3 and K.A.R. 28-29-4, polychlorinated biphenyl (PCB) wastes as defined in 40 CFR part 761 as in effect July 1, 1992, or other wastes not addressed in the transfer station operating plan shall be developed and implemented.

(9) Blowing litter at the solid waste transfer station shall be controlled.

(10) Vectors at the solid waste transfer station shall be controlled.

(11) Each solid waste transfer station shall be cleaned as necessary to:

- (A) minimize odors;
- (B) minimize vectors; and
- (C) provide a safe working environment.

(12) All drainage from wet cleaning of any solid waste transfer station shall be:

- (A) discharged to a sanitary sewer; or
- (B) managed by another method approved by the director.

(13) Each day that waste is received at any solid

waste transfer station, the transfer station shall be cleaned by an appropriate method to minimize odors and nuisance conditions.

(14) All on-site roads at a solid waste transfer station site shall be maintained to minimize dust.

(15) Any solid waste received at a solid waste transfer station shall be loaded into a transfer vehicle by the next day of operation at the transfer station.

(16) Each transfer vehicle shall be removed from the transfer station site within 48 hours after being filled to capacity. Each transfer vehicle not filled to capacity in any seven day period shall be removed from the transfer station site before the end of the seven day period, unless weather, or other abnormal conditions prevent transportation of the transfer vehicle.

(17) Each solid waste transfer station shall be equipped with fire protection equipment that is:

(A) available at all times; and

(B) capable of extinguishing fire resulting from:

(i) hot ashes;

(ii) oxidizers; or

(iii) other fire sources.

(18) An on-site operating record shall be maintained by the transfer station owner or operator. Each record shall be maintained for a minimum of three years. The operating record shall contain the following information:

(A) a daily log of the quantity of solid waste received;

(B) a daily log of the quantity of solid waste transported;

(C) a daily log of the destination of the solid waste transported;

(D) a daily log of any special waste received;

(E) a daily log of any special waste transported;

(F) a copy of each special waste disposal authorization written to the transfer station owner or operator;

(G) a copy of transfer station employee training records; and

(H) a copy of the current facility permit, including the following:

(i) all facility design plans; and

(ii) the facility operating plan.

(19) Each owner or operator shall prepare and submit an annual report to the department by March 1 of each year. The report shall contain:

(A) the weight or volume of solid waste received;

(B) the destination of the solid waste transferred;

(C) the weight or volume of each type of material recovered at the transfer station; and

(D) any changes in the operation that have occurred in the previous year.

(20) Each owner or operator shall develop a contingency plan for the solid waste transfer station. The contingency plan shall:

(A) specify any procedures that shall be initiated if the solid waste transfer station experiences:

(i) an equipment breakdown;

(ii) a fire;

(iii) a receipt of hazardous material;

(iv) a release of a regulated quantity of any waste; or

(v) any other incident that may cause an emergency or suspend operations at the transfer station; and

(B) be available at any time at the transfer station.

(21) Employee training.

(A) The owner or operator of each solid waste transfer station shall provide training to each transfer station employee on the contents of the contingency plan identified in paragraph (c)(20) of this regulation, and the facility operating plan.

(B) A record of employee training required in paragraph (c)(21)(A) of this regulation shall be maintained in the operating record identified in paragraph (c)(18) of this regulation. (Authorized by K.S.A. 1993 Supp.; 65-3406; implementing K.S.A. 65-3401; effective Feb. 20, 1995.)

28-29-24. Construction and demolition landfills. (a) A permit to construct or operate a construction and demolition landfill shall not be required for a construction and demolition landfill operated on the same tract as, and in conjunction with, a permitted sanitary landfill.

(b) If a city or a county, by ordinance or resolution, has established standards equivalent to, or more stringent than, those of the department to control construction and demolition landfills, and demonstrates that it has an enforcing agency to ensure those standards are adhered to, the department will issue a permit to the person operating the site upon certification by the enforcement division of the city or county to the department that those standards will be followed. (Authorized by and implementing K.S.A. 1981 Supp. 65-3406; effective, E-79-22, Sept. 1, 1978;

effective May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982.)

28-29-25. Standards for solid waste processing facilities. (a) Incinerators. All incinerators used for combustion of solid wastes shall be designed and operated in conformity with K.S.A. 65-3001 *et seq.* and rules and regulations adopted under those statutes. All emission control devices, disposal of incinerator residues, and treatment of wastewater shall be approved by the department.

(b) Other methods of solid waste handling, processing, and disposal. Before any disposal area or processing facility, or any method of solid waste handling, processing, or disposal, not provided for in these regulations, is practiced or placed into operation, complete plans, specifications, design data, land-use plans, and proposed operation procedures shall be submitted to the department for review and permit issuance in accordance with K.A.R. 28-29-6. (Authorized by and implementing K.S.A. 1981 Supp. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982.)

28-29-25a. Small yard waste composting sites. This regulation shall apply to each yard waste composting site that has a composting area of one-half acre or less, but this regulation shall not apply to backyard composting. Hay, straw, and manure may be added to yard waste only for the purpose of adjusting the carbon-to-nitrogen ratio of the compost mix. The additives shall not exceed 10 percent by volume of the total mixture without the written approval of the department. Other materials may be added to the yard waste only with the written approval of the department.

(a) Site design. The owner or operator of each yard waste composting site shall design and construct the composting site to meet all of the following requirements.

(1) Composting surface and drainage.

(A) Storm water run-on shall be prevented from entering the receiving, processing, curing, or storage areas by the use of berms or other physical barriers.

(B) The operation shall not cause a discharge of pollutants into waters of the state, in accordance with K.S.A. 65-164, and amendments thereto.

(2) Site access.

(A) At each site that composts yard waste that

is brought in from off-site, the following information shall be posted on one or more signs:

(i) Site name;

(ii) site hours;

(iii) a list of the materials appropriate for composting; and

(iv) the name and telephone number of an emergency contact person.

(B) Unauthorized dumping shall be discouraged by access control.

(b) Site operations. The owner or operator of each yard waste composting site shall perform the following:

(1) Minimize odors;

(2) control disease vectors, dust, litter, and noise; and

(3) remove all finished compost within 18 months of the completion of the composting process.

(c) Site closure. The owner or operator of each yard waste composting site shall perform the following:

(1) Notify the department, in writing, at least 60 days before closure; and

(2) remove all materials from the site within six months of the last receipt of compostable material.

(d) Registration. Each owner or operator of a small yard waste composting site shall submit registration information to the department on a form provided by the department, unless the composting operation is located at a confined feeding facility that has a valid permit issued by the department. (Authorized by and implementing K.S.A. 1998 Supp. 65-3406; effective Oct. 1, 1999.)

28-29-25b. Yard waste composting facilities. This regulation shall apply to each facility that composts yard waste and has a composting area larger than one-half acre. Hay, straw, and manure may be added to yard waste only for the purpose of adjusting the carbon-to-nitrogen ratio of the compost mix. The additives shall not exceed 10 percent by volume of the total mixture without the written approval of the department. Other materials may be added to the yard waste only with the written approval of the department.

(a) Facility design. The owner or operator of each yard waste composting facility shall design and construct the facility to meet the following requirements.

(1) Composting surface and drainage.

(A) Storm water run-on shall be prevented

from entering the receiving, processing, curing, or storage areas by the use of berms or other physical barriers.

(B) The facility shall not cause a discharge of pollutants into waters of the state, in accordance with K.S.A. 65-164, and amendments thereto.

(C) The composting area shall be graded to prevent ponding of liquids.

(D) The surface of the composting area shall be capable of supporting all equipment used.

(2) Facility access.

(A) At each facility that composts yard waste that is brought in from off-site, the following information shall be posted on one or more signs:

(i) Facility name;

(ii) permit number;

(iii) site hours;

(iv) traffic flow;

(v) a list of the materials appropriate for composting; and

(vi) the name and telephone number of an emergency contact person.

(B) Unauthorized dumping shall be discouraged by access control.

(C) Facility roads shall be constructed to allow access for managing the composting operation. Yard waste composting facilities shall be exempt from the all-weather access road requirement prescribed in K.A.R. 28-29-23(e).

(3) Capacity and storage. The composting facility shall have the capacity to store the following materials:

(A) Incoming materials waiting to be processed;

(B) the materials being processed; and

(C) the finished compost, not to exceed 18 months' production.

(b) Facility operations. The owner or operator of each yard waste composting facility shall be exempt from K.A.R. 28-29-23(j) and shall perform the following:

(1) Minimize odors;

(2) control disease vectors, dust, litter, and noise;

(3) segregate incoming waste from finished compost;

(4) inform the public of disposal sites for waste not acceptable for composting at the facility;

(5) begin processing incoming waste within one week of receipt; and

(6) remove all finished compost within 18 months of the completion of the composting process.

(c) Facility closure. The owner or operator of each yard waste composting facility shall perform the following:

(1) Notify the department, in writing, at least 60 days before closure; and

(2) remove all materials from the facility within six months of the last receipt of compostable material.

(d) Permit applications. The owner or operator of each yard waste composting facility shall submit a permit application to the department on a form provided by the department, unless the composting operation is located at a confined feeding facility that has a valid permit issued by the department. The applicant shall include the following items with the permit application.

(1) Facility design plan. This design plan shall not be required to bear the seal and signature of a professional engineer. The facility design plan shall contain all of the following items:

(A) A 7.5 minute topographic map of the area, as typically available from the U.S. geological survey, indicating the facility boundary and the property boundary;

(B) a soil map of the area, as typically available from the U.S. department of agriculture natural resources conservation services;

(C) a 100-year floodplain map of the area, as typically available from the federal emergency management agency; and

(D) a detailed drawing of the facility that indicates the location of all of the following features;

(i) Roads;

(ii) the existing and final grades and contours;

(iii) storm water control;

(iv) buildings and equipment to be installed;

(v) utilities; and

(vi) access control.

(2) Operations plan. The operations plan shall contain the following information:

(A) Job descriptions of persons responsible for operation, control, and maintenance of the facility;

(B) the anticipated annual quantity of waste to be received, and the seasonal variations of the quantity of waste to be received;

(C) the methods to control traffic and to expedite unloading;

(D) the methods for measuring incoming waste;

(E) the methods to control the types of waste received;

(F) the methods for removing noncompostable

wastes from the incoming waste stream, including procedures for storage and disposal of these wastes;

(G) the location of disposal sites for noncompostable wastes;

(H) the method of composting;

(I) a list of equipment to be used;

(J) a description of any additives used in the process;

(K) a quality assurance and quality control plan that outlines the monitoring, sampling, and analysis plans for testing the compost process and product;

(L) the proposed end-use of the compost;

(M) the methods to minimize, manage, and monitor odors;

(N) disease vector, dust, litter, and noise control measures;

(O) leachate and storm water control measures; and

(P) a fire protection and control plan.

(3) Closure plan. The closure plan shall not be required to bear the seal and signature of a professional engineer. This plan shall include the following information:

(A) The steps necessary to close the facility;

(B) the final surface contours; and

(C) a closure cost estimate based on the third-party cost for removing and disposing of the maximum amount of wastes that may be contained at the facility. (Authorized by and implementing K.S.A. 1998 Supp. 65-3406; effective Oct. 1, 1999.)

28-29-25c. Manure composting. For the purposes of this regulation, subsections (a), (b), (c), and (d) shall apply to each facility that composts manure and has a composting area of one-half acre or less. Subsections (a), (b), (c), and (e) of this regulation shall apply to each facility that composts manure and has a composting area larger than one-half acre. On-site storage of manure shall not be considered composting.

(a) Facility design. The owner or operator of each facility that composts manure shall design and construct the facility to meet the following requirements:

(1) Composting surface and drainage.

(A) Storm water run-on shall be prevented from entering the receiving, processing, curing, or storage areas by the use of berms or other physical barriers.

(B) The facility shall not cause a discharge of

pollutants into waters of the state, in accordance with K.S.A. 65-164, and amendments thereto.

(C) Leachate control shall be provided whenever leachate is generated.

(D) The composting area shall be graded to prevent ponding of liquids.

(E) The surface of the composting area shall be capable of supporting all equipment used.

(2) Facility access.

(A) At each facility that composts manure that is brought in from off-site, the following information shall be posted on one or more signs:

(i) Facility name;

(ii) permit number;

(iii) site hours;

(iv) traffic flow;

(v) a list of the materials appropriate for composting; and

(vi) the name and telephone number of an emergency contact person.

(B) Unauthorized dumping shall be discouraged by access control.

(C) Facility roads shall be constructed to allow access for managing the composting operation. Manure composting facilities shall be exempt from the all-weather access road requirement prescribed in K.A.R. 28-29-23(e).

(3) Capacity and storage. The facility shall have the capacity to store the following materials:

(A) Incoming materials waiting to be processed;

(B) the materials being processed; and

(C) the finished compost, not to exceed 18 months' production.

(4) Separation distances. For the purposes of this regulation, "animal unit," "habitable structure," and "wildlife refuge" have the same meaning as set forth in K.S.A. 65-171d, and amendments thereto.

(A) Each facility that composts livestock manure, other than swine manure, shall meet or exceed the following separation distances from any habitable structure in existence when the facility begins operations:

(i) 1,320 feet for facilities composting manure from 300 to 999 animal units; and

(ii) 4,000 feet for facilities composting manure from 1,000 or more animal units.

(B) Each facility that composts swine manure shall meet or exceed the following separation distances from any habitable structure or city, county, state, or federal park in existence when the facility begins operations:

(i) 1,320 feet for facilities composting manure from 300 to 999 animal units;

(ii) 4,000 feet for facilities composting manure from 1,000 to 3,724 animal units; and

(iii) 5,000 feet for facilities composting manure from 3,725 or more animal units.

(C) Each facility that composts swine manure shall meet or exceed the following separation distances from any wildlife refuge:

(i) 10,000 feet for facilities composting manure from 1,000 to 3,724 animal units; and

(ii) 16,000 feet for facilities composting manure from 3,725 or more animal units.

(D) For each manure composting operation located at a confined feeding facility, the separation distances as set forth in K.S.A. 65-171d and amendments thereto shall apply.

(5) Exceptions to the separation distances.

(A) The separation distance requirements of paragraphs (a)(4)(A) and (B) of this regulation shall not apply if the owner or operator obtains written agreement from all owners of habitable structures that are within the separation distance, stating that the owners of the habitable structures are aware of the operation and have no objections to the operation. The written agreement shall be filed in the office of the register of deeds of the county in which the habitable structure is located.

(B) The separation distance requirements of paragraph (a)(4)(A) of this regulation may be reduced by the secretary if one of the following conditions applies:

(i) No substantial objection from owners of habitable structures within the separation distance is received in response to public notice.

(ii) The board of county commissioners of the county where the composting operation is located submits a written request seeking a reduction of the separation distances.

(C) The separation distance requirements of paragraphs (4)(B)(i) and (ii) of this regulation may be reduced by the secretary if one of the following conditions applies:

(i) No substantial objection is received in response to notice given by certified mail, return response requested, to owners of all habitable structures within the separation distance.

(ii) The board of county commissioners of the county where the composting operation is located submits a written request seeking a reduction of separation distances.

(iii) The secretary determines that technology exists that meets or exceeds the effect of the re-

quired separation distance and the composting operation will be using the technology.

(D) The separation distance requirements of paragraph (4)(B)(iii) of this regulation may be reduced by the secretary if one of the following conditions applies:

(i) No substantial objection is received in response to notice given by certified mail, return response requested, to owners of all habitable structures within the separation distance.

(ii) The secretary determines that technology exists that meets or exceeds the effect of the required separation distance and the composting operation will be using the technology.

(E) For each manure composting operation located at a confined feeding facility, exceptions to the separation distances as set forth in K.S.A. 65-171d and amendments thereto shall apply.

(b) Facility operations. The owner or operator of each facility that composts manure shall perform the following:

(1) Minimize odors;

(2) control disease vectors, dust, litter, and noise;

(3) segregate incoming waste from finished compost;

(4) limit public access to hours when an attendant or any operating personnel are at the facility;

(5) begin processing incoming waste by the end of the working day; and

(6) remove all finished compost within 18 months of the completion of the composting process.

(c) Facility closure. The owner or operator of each facility that composts manure shall perform the following:

(1) Notify the department, in writing, at least 60 days before closure; and

(2) remove all materials from the facility within six months of the last receipt of compostable material.

(d) Registration. Each owner or operator of a facility that composts manure and has a composting area of one-half acre or less shall submit registration information to the department on a form provided by the department, unless the composting operation is located at a confined feeding facility that has a valid permit issued by the department.

(e) Permit applications. The owner or operator of each facility that composts manure and has a composting area larger than one-half acre shall submit a permit application to the department on

a form provided by the department, unless the composting operation is located at a confined feeding facility that has a valid permit issued by the department. The applicant shall include the following items with the permit application:

(1) Facility design plan. The facility design plan shall contain all of the following items:

(A) A 7.5 minute topographic map of the area, as typically available from the U.S. geological survey indicating the facility boundary and the property boundary;

(B) a soil map of the area, as typically available from the U.S. department of agriculture natural resources conservation services;

(C) a 100-year floodplain map of the area, as typically available from the federal emergency management agency; and

(D) a detailed drawing of the facility that indicates the location of the following features:

- (i) Roads;
- (ii) the existing and final grades and contours;
- (iii) storm water control;
- (iv) buildings and equipment to be installed;
- (v) utilities;
- (vi) access control; and
- (vii) all other structures.

(2) Operations plan. The operations plan shall contain the following information:

(A) Job descriptions of persons responsible for operation, control, and maintenance of the facility;

(B) the anticipated annual quantity of waste to be received, and the seasonal variations of the quantity of waste to be received;

(C) the sources of waste to be received;

(D) the methods to control traffic and to expedite unloading;

(E) the methods for measuring incoming waste;

(F) the methods to control the types of waste received;

(G) the methods for removing noncompostable wastes from the incoming waste stream, including procedures for storage and disposal of these wastes;

(H) the location of disposal sites for noncompostable wastes;

(I) the method of composting;

(J) a list of equipment to be used;

(K) a description of additives used in the process;

(L) a quality assurance and quality control plan that outlines the monitoring, sampling, and anal-

ysis plans for testing the compost process and product;

(M) the proposed end use of product;

(N) the methods to minimize, manage, and monitor odors;

(O) disease vector, dust, litter, and noise control measures;

(P) leachate and national pollutant discharge elimination system storm water control measures;

(Q) the plans for operations during wind, heavy rain, snow, freezing temperatures, or other inclement weather conditions;

(R) a contingency plan for events including equipment failure, power outages, natural disasters, receipt of prohibited materials, or other similar interruptions of normal activities; and

(S) a fire protection and control plan.

(3) Closure plan. The closure plan shall include the following information:

(A) The steps necessary to close the facility;

(B) the final surface contours; and

(C) a closure cost estimate based on the third-party cost of removing and disposing of the maximum amount of wastes that may be contained at the facility. (Authorized by and implementing K.S.A. 1998 Supp. 65-3406; effective Oct. 1, 1999.)

28-29-25d. Livestock composting. For the purposes of this regulation, subsections (a), (b), (c), and (d) shall apply to each facility that composts livestock, including chickens and turkeys, and has a composting area of one-half acre or less. Subsections (a), (b), (c), and (e) of this regulation shall apply to each facility that composts livestock, including chickens and turkeys, and has a composting area larger than one-half acre.

(a) The owner or operator of each facility that composts livestock shall design and construct the facility to meet the following requirements.

(1) Composting surface and drainage.

(A) Storm water run-on shall be prevented from entering the receiving, processing, curing, or storage areas by the use of berms or other physical barriers.

(B) The facility shall not cause a discharge of pollutants into waters of the state, in accordance with K.S.A. 65-164, and amendments thereto.

(C) Leachate control shall be provided wherever leachate is generated.

(D) The composting area shall be graded to prevent ponding of liquids.

(E) The surface of the composting area shall be capable of supporting all equipment used.

(F) The facility shall be constructed with either a floor or a roof that meets one of the following requirements:

(i) The floor shall be composed of a layer of material that is at least one foot thick and has a hydraulic conductivity no greater than 10^{-7} cm/sec, or the facility shall be designed to provide the same level of protection to the groundwater; or

(ii) the receiving, processing, and curing areas shall be covered by a roof, or the facility shall be designed to provide the same level of protection from the weather.

(2) Facility access.

(A) At each facility that composts livestock that is brought in from off-site, the following information shall be posted on one or more signs:

(i) Facility name;

(ii) permit number;

(iii) site hours;

(iv) traffic flow;

(v) a list of the materials appropriate for composting; and

(vi) the name and telephone number of an emergency contact person.

(B) Unauthorized dumping shall be discouraged by access control.

(C) Facility roads shall be constructed to allow adequate access for managing the composting operation. Facilities that compost livestock shall be exempt from the all-weather access road requirement prescribed in K.A.R. 28-29-23(e).

(3) Capacity and storage. The facility shall have the capacity to store the following materials:

(A) Incoming materials waiting to be processed;

(B) the materials being processed; and

(C) the finished compost, not to exceed 18 months' production.

(4) Separation distances. For the purposes of this regulation, "animal unit," "animal unit capacity," "habitable structure," and "wildlife refuge" have the same meaning as set forth in K.S.A. 65-171d, and amendments thereto.

(A) Each facility that composts livestock from one or more confined feeding facilities, other than confined feeding facilities for swine, shall meet or exceed the following separation distances from any habitable structure in existence when the facility begins operations:

(i) 1,320 feet for facilities composting livestock from one or more confined feeding facilities with

a combined animal unit capacity of 300 to 999; and

(ii) 4,000 feet for facilities composting livestock from one or more confined feeding facilities with a combined animal unit capacity of 1,000 or more.

(B) Each facility that composts livestock from one or more confined feeding facilities for swine shall meet or exceed the following separation distances from any habitable structure or city, county, state, or federal park in existence when the facility begins operations:

(i) 1,320 feet for facilities composting swine from one or more confined feeding facilities with a combined animal unit capacity of 300 to 999;

(ii) 4,000 feet for facilities composting swine from one or more confined feeding facilities with a combined animal unit capacity of 1,000 to 3,724; and

(iii) 5,000 feet for facilities composting swine from one or more confined feeding facilities with a combined animal unit capacity of 3,725 or more.

(C) Each facility that composts livestock from one or more confined feeding facilities for swine shall meet or exceed the following separation distances from any wildlife refuge:

(i) 10,000 feet for facilities composting swine from one or more confined feeding facilities with a combined animal unit capacity of 1,000 or 3,724; and

(ii) 16,000 feet for facilities composting swine from one or more confined feeding facilities with combined animal unit capacity of 3,725 or more.

(D) Exceptions to the separation distances set forth in K.S.A. 65-171d, and amendments thereto, shall apply.

(b) Facility operations. The owner or operator of each facility that composts livestock shall perform the following:

(1) Minimize odors;

(2) control disease vectors, dust, litter, and noise;

(3) ensure that dead animals are not visible from municipal roads or habitable structures;

(4) protect the facility from scavenging by animals;

(5) segregate incoming waste from finished compost;

(6) begin processing incoming waste by the end of the working day;

(7) limit public access to hours when an attendant or any operating personnel are at the facility; and

(8) remove all finished compost within 18

months of the completion of the composting process.

(c) Facility closure. The owner or operator of each facility that composts livestock shall perform the following:

(1) Notify the department, in writing, at least 60 days before closure;

(2) remove all material from the facility within 10 days of ceasing operation; and

(3) clean all containers, equipment, machines, floors, and site surfaces that have been in contact with dead animals or solid waste.

(d) Registration. Each owner or operator of a facility that composts livestock and has a composting area of one-half acre or less shall submit registration information to the department on a form provided by the department, unless the composting operation is located at a confined feeding facility that has a valid permit issued by the department.

(e) Permit applications. The owner or operator of each facility that composts livestock and has a composting area larger than one-half acre shall submit a permit application to the department on a form provided by the department, unless the composting operation is located at a confined feeding facility that has a valid permit issued by the department. The applicant shall include the following items with the permit application:

(1) Facility design plan. The facility design plan shall contain the following items:

(A) A 7.5 minute topographic map of the area, as typically available from the U.S. geological survey, indicating the facility boundary and the property boundary;

(B) a soil map of the area, as typically available from the U.S. department of agriculture natural resources conservation services;

(C) a 100-year floodplain map of the area, as typically available from the federal emergency management agency;

(D) plan and profile views of the facility indicating the following features:

(i) Roads;

(ii) the existing and final grades and contours;

(iii) storm water control;

(iv) buildings and equipment to be installed;

(v) utilities;

(vi) access control; and

(vii) all other structures; and

(E) information on the permeability of the floor structure.

(2) Operations plan. The operations plan shall contain the following information:

(A) Job descriptions of persons responsible for operation, control, and maintenance of the facility;

(B) the anticipated annual quantity of waste to be received, and the seasonal variations of the quantity of waste to be received;

(C) the sources of waste to be received;

(D) the methods to control traffic and to expedite unloading;

(E) the methods for measuring incoming waste;

(F) the methods to control the types of waste received;

(G) the methods for removing non-compostable wastes from the incoming waste stream, including procedures for storage and disposal of these wastes;

(H) the location of disposal sites for non-compostable wastes;

(I) the method of composting;

(J) a list of equipment to be used;

(K) a description of any additives used in the process;

(L) a quality assurance and quality control plan that outlines the monitoring, sampling, and analysis plans for testing the compost process and product;

(M) the proposed end-use of compost;

(N) the methods to minimize, manage, and monitor odors;

(O) disease vector, dust, litter, and noise control measures;

(P) leachate and national pollutant discharge elimination system storm water control measures;

(Q) the plans for operations during wind, heavy rain, snow, freezing temperatures, or other inclement weather conditions;

(R) a contingency plan for events including equipment failure, power outages, natural disasters, fire, receipt of prohibited materials, or similar interruptions of normal activities; and

(S) a fire protection and control plan.

(3) Closure plan. The closure plan shall include the following information:

(A) The steps necessary to close the facility;

(B) the final surface contours; and

(C) a closure cost estimate based on the third-party cost of removing and disposing of the maximum amount of wastes that may be contained at the facility. (Authorized by and implementing

K.S.A. 1997 Supp. 65-3406 and L. 1998, ch. 143, sec. 37; effective Jan. 8, 1999.)

28-29-25e. Source-separated organic waste composting. For the purposes of this regulation, subsections (a), (b), (c), and (d) shall apply to each facility that composts source-separated organic waste and has a composting area of one-half acre or less. Subsections (a), (b), (c), and (e) of this regulation shall apply to each facility that composts source-separated organic waste and has a composting area larger than one-half acre.

(a) Facility design. The owner or operator of each facility that composts source-separated organic waste shall design and construct the facility to meet the following requirements:

(1) Composting surface and drainage.

(A) Storm water run-on shall be prevented from entering the receiving, processing, curing, or storage areas by the use of berms or other physical barriers.

(B) The facility shall not cause a discharge of pollutants into waters of the state in accordance with K.S.A. 65-164, and amendments thereto.

(C) Leachate control shall be provided whenever leachate is generated.

(D) The composting area shall be graded to prevent ponding of liquids.

(E) The surface of the composting area shall be capable of supporting the equipment used.

(2) Facility access.

(A) At each facility that composts source-separated organic waste that is brought in from off-site, the following information shall be posted on one or more signs:

(i) Facility name;

(ii) permit number;

(iii) site hours;

(iv) traffic flow;

(v) a list of the materials appropriate for composting; and

(vi) the name and telephone number of an emergency contact person.

(B) Unauthorized dumping shall be discouraged by access control.

(C) Access roads shall be of all-weather construction and shall be negotiable at all times. Load limits on bridges and access roads shall be sufficient to support all traffic loads generated by the use of the facility.

(3) Capacity and storage. The facility shall have the capacity to store the following materials:

(A) Incoming materials waiting to be processed;

(B) the materials being processed; and

(C) the finished compost, not to exceed 18 months' production.

(b) Facility operations. The owner or operator of each facility that composts source-separated organic waste shall perform the following:

(1) Minimize odors;

(2) control disease vectors, dust, litter, and noise;

(3) protect the facility from scavenging by animals;

(4) segregate incoming waste from finished compost;

(5) inform the public of disposal sites for waste not acceptable for composting at the facility;

(6) limit public access to hours when an attendant or any operating personnel are at the facility;

(7) begin processing incoming waste within 24 hours of receipt;

(8) if sewage sludge is composted, comply with 40 CFR Part 503, as in effect on February 19, 1993; and

(9) remove all finished compost within 18 months of the completion of the composting process.

(c) Facility closure. The owner or operator of each facility that composts source-separated organic waste shall perform the following:

(1) Notify the department, in writing, at least 60 days before closure;

(2) remove all material from the facility within 10 days of ceasing operation; and

(3) clean all containers, equipment, machines, floors, and site surfaces that have been in contact with source-separated organic waste or solid waste.

(d) Registration. Each owner or operator of a facility that composts source-separated organic waste and has a composting area of one-half acre or less shall submit registration information to the department on a form provided by the department.

(e) Permit applications. The owner or operator of each facility that composts source-separated organic waste and has a composting area larger than one-half acre shall submit a permit application to the department on a form provided by the department. The applicant shall include the following items with the permit application:

(1) Facility design plan. The facility design plan shall contain the following items:

(A) A 7.5 minute topographic map of the area, as typically available from the U.S. geological survey, indicating the facility boundary and the property boundary;

(B) a soil map of the area, as typically available from the U.S. department of agriculture natural resources conservation services;

(C) a 100-year floodplain map of the area, as typically available from the federal emergency management agency; and

(D) plan and profile views of the facility indicating the following features:

- (i) Roads;
- (ii) the existing and final grades and contours;
- (iii) storm water control;
- (iv) buildings and equipment to be installed;
- (v) utilities;
- (vi) access control; and
- (vii) all other structures.

(2) Operations plan. The operations plan shall contain the following information:

(A) Job descriptions of persons responsible for operation, control, and maintenance of the facility;

(B) the anticipated annual quantity of waste to be received, and the seasonal variations of the quantity of waste to be received;

(C) the sources of waste to be received;

(D) the methods to control traffic and to expedite unloading;

(E) the methods for measuring incoming waste;

(F) the methods to control the types of waste received;

(G) the methods for removing noncompostable wastes from the incoming waste stream, including procedures for storage and disposal of these wastes;

(H) the location of disposal site for noncompostable wastes;

(I) the method of composting;

(J) a description of equipment proposed to be used in composting, including equipment specifications and manufacturer's performance standards. The proposed equipment shall be compatible with the proposed process and throughput;

(K) a description of any additives used in the process;

(L) the methods for managing biological conditions;

(M) a quality assurance and quality control plan that outlines the monitoring, sampling, and

analysis plans for testing the compost process and product;

(N) the proposed end use of compost;

(O) the methods to minimize, manage, and monitor odors;

(P) disease vector, dust, litter, and noise control measures;

(Q) leachate and national pollutant discharge elimination system storm water control measures;

(R) the plans for operations during wind, heavy rain, snow, freezing temperatures, or other inclement weather conditions;

(S) a contingency plan for events including equipment failure, power outages, natural disasters, fire, receipt of prohibited materials, or similar interruptions of normal activities; and

(T) a fire protection and control plan.

(3) Closure plan. The closure plan shall include the following information:

(A) The steps necessary to close the facility;

(B) the final surface contours; and

(C) a closure cost estimate based on the third-party cost of removing and disposing of the maximum amount of wastes that may be contained at the facility. (Authorized by and implementing K.S.A. 1998 Supp. 65-3406; effective Oct. 1, 1999.)

28-29-25f. Solid waste composting. For the purposes of this regulation, subsections (a), (b), (c), and (d) shall apply to each facility that composts solid waste and has a composting area of one-half acre or less, except facilities that compost only yard waste, manure, dead animals, source-separated organic waste, or any combination of yard waste, manure, dead animals, and source-separated organic waste. Subsections (a), (b), (c), and (e) of this regulation shall apply to each facility that composts solid waste and has a composting area larger than one-half acre, except facilities that compost only yard waste, manure, dead animals, source-separated organic waste, or any combination of yard waste, manure, dead animals, and source-separated organic waste.

(a) Facility design. The owner or operator of each solid waste composting facility shall design and construct the facility to meet the following requirements:

(1) Composting surface and drainage.

(A) Storm water run-on shall be prevented from entering the receiving, processing, curing, or storage areas by the use of berms or other physical barriers.

(B) The facility shall not cause a discharge of pollutants into the waters of the state, in accordance with K.S.A. 65-164, and amendments thereto.

(C) Leachate control shall be provided whenever leachate is generated.

(D) The composting area shall be graded to prevent ponding of liquids.

(E) The surface of the composting area shall be capable of supporting the equipment used.

(F) The floor shall be composed of a layer of material that is at least one foot thick and has a hydraulic conductivity no greater than 10^{-7} cm/sec, or the facility shall be designed to provide the same level of protection to the groundwater.

(G) The receiving, processing, and curing areas shall be covered by a roof, or the facility shall be designed to provide the same level of protection from the weather.

(2) Facility access.

(A) At each facility that composts solid waste that is brought in from off-site, the following information shall be posted on one or more signs:

- (i) Facility name;
- (ii) permit number;
- (iii) site hours;
- (iv) traffic flow;

(v) a list of the materials appropriate for composting; and

(vi) the name and telephone number of an emergency contact person.

(B) Unauthorized dumping shall be discouraged by access control.

(C) Access roads shall be of all-weather construction and shall be negotiable at all times. Load limits on bridges and access roads shall be sufficient to support all traffic loads generated by the use of the facility.

(3) Capacity and storage. The facility shall have the capacity to store the following materials:

(A) Incoming materials waiting to be processed;

(B) the materials being processed; and

(C) the finished compost, not to exceed 18 months' production.

(b) Facility operations. The owner or operator of each solid waste composting facility shall perform the following:

(1) Minimize odors;

(2) control disease vectors, dust, litter, and noise;

(3) protect the facility from scavenging by animals;

(4) segregate incoming waste from finished compost;

(5) inform the public of disposal sites for waste not acceptable for composting at the facility;

(6) limit public access to hours when an attendant or any operating personnel are at the facility.

(7) begin processing incoming waste within 24 hours of receipt;

(8) use one of the following processes to further reduce pathogens (PFRP):

(A) Windrow composting method. When using this method, the following conditions shall be met:

(i) Aerobic conditions shall be maintained within the windrow;

(ii) the waste shall attain a temperature of 55° C, 131° F, or greater for at least 15 days during the composting period; and

(iii) the windrow shall be turned a minimum of five times during the high temperature period;

(B) Aerated static pile composting method. When using this method, the waste shall be covered with six to 12 inches of insulating material and maintained at a temperature of 55° C, 131° F, or greater for a minimum of three consecutive days;

(C) Enclosed-vessel composting method. When using this method, the waste shall be maintained at a temperature of 55° C, 131° F, or greater for a minimum of three consecutive days; or

(D) any other method approved by the department;

(9) record the following information:

(A) The temperature and moisture content of materials during the composting process, in accordance with the operating plan;

(B) the daily volume or weight of waste received;

(C) the source of waste;

(D) all laboratory analyses required by the permit; and

(E) the volume of recovered materials; and

(10) remove all finished compost within 18 months of the completion of the composting process.

(c) Facility closure. The owner or operator of each facility that composts solid waste shall perform the following:

(1) Notify the department, in writing, at least 60 days before closure;

(2) remove all material from the facility within 10 days of ceasing operation; and

(3) clean all containers, equipment, machines,

floors, and site surfaces that have been in contact with solid waste.

(d) Registration. Each owner or operator of a facility that composts solid waste and has a composting area of one-half acre or less shall submit registration information to the department on a form provided by the department.

(e) Permit applications. The owner or operator of each facility that composts solid waste and has a composting area larger than one-half acre shall submit a permit application to the department on a form provided by the department. The applicant shall include the following items with the permit application:

(1) Facility design plan. The facility design plan shall contain the following items:

(A) A 7.5 minute topographic map of the area, as typically available from the U.S. geological survey, indicating the facility boundary and the property boundary;

(B) a soil map of the area, as typically available from the U.S. department of agriculture natural resources conservation services;

(C) a 100-year floodplain map of the area, as typically available from the federal emergency management agency;

(D) plan and profile views of the facility indicating the following features:

- (i) Roads;
- (ii) the existing and final grades and contours;
- (iii) storm water control;
- (iv) buildings and equipment to be installed;
- (v) utilities;
- (vi) access control; and
- (vii) all other structures;

(E) information on the permeability of the floor structure; and

(F) a flow diagram of the proposed processing steps involved in recovering recyclable materials and mixed organic material from solid waste, including a total mass balance.

(2) Operations plan. The operations plan shall contain the following information:

(A) Job descriptions of persons responsible for operation, control, and maintenance of the facility;

(B) the anticipated annual quantity of waste to be received, and the seasonal variations of the quantity of waste to be received;

(C) the sources of waste to be received;

(D) the methods to control traffic and to expedite unloading;

(E) the methods for measuring incoming waste;

(F) the methods to control the types of waste received;

(G) the methods for removing noncompostable wastes from the incoming waste stream, including procedures for storage and disposal of these wastes;

(H) the location of disposal sites for noncompostable wastes;

(I) the method of composting;

(J) a description of equipment proposed to be used in composting, including equipment specifications and manufacturer's performance standards. The proposed equipment shall be compatible with the proposed process and throughput;

(K) a description of any additives used in the process;

(L) the methods for managing biological conditions;

(M) a quality assurance and quality control plan that outlines the monitoring, sampling, and analysis plans for testing the compost process and product;

(N) the proposed end use of compost;

(O) the methods to minimize, manage, and monitor odors;

(P) disease vector, dust, litter, and noise control measures;

(Q) leachate and national pollutant discharge elimination system storm water control measures;

(R) the plans for operations during wind, heavy rain, snow, freezing temperatures, or other inclement weather conditions;

(S) a contingency plan for events including equipment failure, power outages, natural disasters, fire, receipt of prohibited materials, or similar interruptions of normal activities; and

(T) a fire protection and control plan.

(3) Closure plan. The closure plan shall include the following information:

(A) The steps necessary to close the facility;

(B) the final surface contours; and

(C) a closure cost estimate based on the third-party cost of removing and disposing of the maximum amount of wastes that may be contained at the facility. (Authorized by and implementing K.S.A. 1998 Supp. 65-3406; effective Oct. 1, 1999.)

28-29-26. (Authorized by and implementing K.S.A. 1983 Supp. 65-3406; effective May 1,

1982; amended, T-84-41, Dec. 21, 1983; amended May 1, 1984; revoked June 4, 1999.)

28-29-27. Medical services waste. (a) "Medical services waste" means those solid waste materials that are potentially capable of causing disease or injury and are generated in connection with human or animal care through inpatient and outpatient services. Medical services waste shall not include any solid waste that has been classified by the secretary as a hazardous waste under K.S.A. 1996 Supp. 65-3431 and any amendments thereto, or that is radioactive treatment material licensed under K.S.A. 48-1607 and regulations adopted under that statute.

(b) Segregation. All medical services waste shall be segregated from other solid wastes at the point of origin.

(c) Storage. All medical services waste shall be stored in a manner and in a container that will prevent the transmission of disease or the causing of injury. Hypodermic needles and syringes, scalpel blades, suture needles, or other sharp objects shall be stored only in a rigid, puncture-resistant container that has been closed to prevent the escape of any material, including liquids or aerosols. All reusable containers used to store infectious waste shall be cleaned and disinfected before each use.

(d) Collection. Medical services wastes shall be collected at least daily from the point of origin for transport to a storage or disposal area or a processing facility. Personnel shall take precautions to prevent accidental contact with the waste during transfer.

(e) Transportation. All medical services wastes transported off-site shall be transported in a manner that will prevent the spread of disease or the causing of injury to persons.

(1) The waste transporter or disposal firm shall be notified of the types of waste.

(2) Containers of medical services waste transported off-site shall be labeled or color coded in accordance with 29 CFR 1910.1030(g)(1)(i), as in effect on July 1, 1996.

(f) Processing. In all processing of medical services waste, dispersal of aerosols and liquids shall be prevented through the use of proper coverings, seals, and ventilation. Personnel shall be protected against contact with the waste through the use of protective clothing and equipment. Medical services waste that has been processed may be combined with other solid waste. Where feasible, all medical services wastes shall be proc-

essed before transportation off-site by using either of the following methods:

(1) Sterilizing infectious wastes by autoclaving or chemical treatment, to destroy the disease-transmission potential; or

(2) grinding, melting, or pulverizing sharp objects to destroy the injury-producing potential.

(g) Disposal. Medical services waste shall be disposed of in a manner that minimizes the risk to health, safety, or the environment. The following shall be considered acceptable disposal methods:

(1) Discharge of liquids to a sanitary sewer connected to a secondary sewage treatment plant;

(2) incineration of combustible solids, followed by disposal of the ash in a sanitary landfill;

(3) disposal in a hazardous waste disposal facility that has a permit issued under K.A.R. 28-31-9; or

(4) disposal in a sanitary landfill in accordance with the provisions of K.A.R. 28-29-109. (Authorized by and implementing K.S.A. 1996 Supp. 65-3406, as amended by L. 1997, Ch. 139, Sec. 1; effective May 1, 1982; amended, T-84-41, Dec. 21, 1983; effective May 1, 1984; amended July 10, 1998.)

PART 3.—STANDARDS FOR WASTE TIRE MANAGEMENT

28-29-28. Definitions. For the purposes of these regulations, the following terms shall be defined as follows.

(a) "Contaminated waste tire" shall have the meaning specified in K.S.A. 65-3424 and amendments thereto. A waste tire shall be deemed "substantially unsuitable for processing" if the volume of material with which the tire is coated or filled is estimated to be equal to or greater than 50% of the combined volume of the waste tire and contaminant. The determination that a waste tire is a contaminated waste tire shall be based on an inspection by the secretary or the secretary's designee.

(b) "Financial assurance" means a bond or other instrument that meets the requirements of K.A.R. 28-29-2101 through K.A.R. 28-29-2113.

(c) "Passenger tire equivalent" means 20 pounds of tires or processed waste tires.

(d) "Retreader" means a person engaged in the business of recapping tire casings to produce recapped tires for sale to the public.

(e) "Rick" means to stack tires securely by overlapping so that the center of a tire is offset from the center of the tire below it.

(f) "Waste tire monofill" means a permitted solid waste landfill or landfill cell in which only processed waste tires are placed.

(g) "Waste tire transporter" means a person who transports waste tires from a location in Kansas or to a location in Kansas. "Waste tire transporter" shall not mean a person transporting waste tires through Kansas, if both the origin and the destination of the waste tires are outside of Kansas. (Authorized by K.S.A. 65-3424h; implementing K.S.A. 2006 Supp. 65-3424b; effective, T-28-4-27-92, April 27, 1992; effective June 8, 1992; amended Sept. 12, 1997; amended Oct. 26, 2007.)

28-29-28a. Establishing value of used tires. (a) Used tires at a waste tire collection center shall be considered to have value if the owner of the used tires demonstrates to the department, through sales and inventory records, that the used tires are being sold at a rate equal to or greater than 75% of the daily used tire inventory per year.

(b) Each owner of used tires at a waste tire collection center shall choose one of the following methods to determine the daily used tire inventory.

(1) The owner of the used tires shall count the used tires on the day of inspection by the department and shall use that number as the daily used tire inventory for the purpose of establishing the value of the used tires.

(2) The owner of the used tires shall inventory all the used tires at the waste tire collection center at least once every month and shall use the average (mean) of these monthly inventories to calculate the daily used tire inventory for the purpose of establishing the value of the used tires. The owner of the used tires shall maintain a record of each monthly inventory for at least 12 months after the monthly inventory and shall provide the department with the monthly inventory records on request.

(c) Each owner of used tires at a waste tire collection center shall maintain used tire sales records for at least 12 months after the sale and shall provide the department with the sales records on request.

(d) Any owner of used tires at a waste tire collection center who has fewer than 12 months of sales records available may use the following equation to calculate the sales rate, in terms of percent of the daily used tire inventory sold per year, as described in subsection (a) of this regulation:

$$\left(\frac{(\text{number of used tires sold within } \times \text{ months}) \left(\frac{12}{\times} \right)}{\text{daily used tire inventory}} \right) 100 = \%.$$

" \times " means the number of months for which sales records are available. (Authorized by K.S.A. 65-3424h; implementing K.S.A. 1996 Supp. 65-3424b; effective Sept. 12, 1997.)

28-29-29. Waste tire processing and disposal standards. (a) Any person may dispose of waste tires by landfilling, if the waste tires meet the criteria specified for the landfill disposal of waste tires in K.S.A. 65-3424a, and amendments thereto.

(b) The processing of waste tires for landfill disposal, as required by K.S.A. 65-3424a and amendments thereto, shall be accomplished by any of the following means:

- (1) Shredding;
- (2) cutting in half along the circumference;
- (3) cutting into at least four parts, with no part being greater than $\frac{1}{3}$ of the original tire size;
- (4) chipping;
- (5) crumbing;
- (6) baling in a manner that reduces the volume of the waste tires by at least 50%; or
- (7) using an equivalent volume-reduction process that has received prior approval, in writing, from the secretary.

(c) Any person may process waste tires by burning, incineration, or other combustion process, including use as an alternative fuel, if the person performs all of the following:

- (1) Obtains a waste tire processing facility permit or a mobile waste tire processor permit from the secretary;
- (2) conducts the burning, incineration, or other combustion process in compliance with the Kansas air quality act, K.S.A. 65-3001 et seq. and amendments thereto, and its implementing regulations in article 19; and
- (3) handles all residue from the burning, incineration, or other combustion process by either or both of the following means:

(A) Disposal at a landfill permitted for disposal of the residue; or

(B) recycling. (Authorized by K.S.A. 65-3424h; implementing K.S.A. 2006 Supp. 65-3424a; effective, T-28-4-27-92, April 27, 1992; effective June 8, 1992; amended Sept. 12, 1997; amended March 22, 2002; amended Oct. 26, 2007.)

28-29-29a. Beneficial use of waste tires. “Beneficial use” shall have the meaning specified in K.S.A. 65-3424, and amendments thereto.

(a) Approved beneficial use.

(1) Any person may use or store waste tires for a beneficial use if all of the following requirements are met:

(A) The use or storage is listed in the definition of “beneficial use” in K.S.A. 65-3424, and amendments thereto.

(B) The use or storage is conducted in accordance with subsections (b) and (c).

(C) The use or storage has no adverse impact on public health and safety and the environment.

(2) Each person that plans to use or store waste tires for a beneficial use that is not listed in the definition of “beneficial use” in K.S.A. 65-3424, and amendments thereto, shall submit an application for approval to the department, on a form provided by the department. The use or storage may be approved by the secretary if the use or storage meets the criteria specified in K.S.A. 65-3424, and amendments thereto.

(b) Management standards for all beneficial uses. The owner of the waste tires shall manage the waste tires in a manner that meets these requirements:

(1) Controls mosquitoes and other disease vectors, as specified in K.A.R. 28-29-29b; and

(2) minimizes the risk and impact of fire.

(c) Management standards for specific beneficial uses. The owner of waste tires used for any of the following beneficial uses shall meet the following requirements for that use:

(1) Windbreaks constructed of baled tires. The owner shall comply with the following requirements:

(A) Construct and maintain a stable base for the windbreak;

(B) construct the windbreak to be 200 feet or less in length;

(C) construct the windbreak to be three bales or less in height;

(D) repair all broken wires on the bales; and

(E) follow the fire control standards for the outdoor storage of tires specified in K.A.R. 28-29-31.

(2) Windbreaks constructed of waste tires that are not baled. The owner shall comply with the following requirements:

(A) Construct the windbreak to be 200 feet or less in length;

(B) construct the windbreak to be eight feet or less in height;

(C) place poles, either in the center of the waste tire stacks or next to the waste tire stacks, to stabilize the waste tires;

(D) fill each stack of waste tires with sand or soil; and

(E) follow the fire control standards for the outdoor storage of tires specified in K.A.R. 28-29-31.

(3) Erosion control on the face of an earthen dam. The owner shall comply with the following requirements:

(A) Place the waste tires in a secure manner that ensures the longevity of the project;

(B) fill each tire with rock or mortar that will not be washed out by wave action;

(C) offset the rows of waste tires for stability; and

(D) place the tires to extend below the normal water level.

(4) Stabilization of soil or sand blowouts caused by wind. The owner shall perform the following:

(A) Place the waste tires in a random pattern or in rows perpendicular to the prevailing wind direction;

(B) confine the tires to an area of one-half acre or less; and

(C) after a vegetative cover has been established, remove each waste tire from the site if both of the following conditions are met:

(i) Less than one-half of the tire is covered by sand; and

(ii) removing the tire will not damage the vegetative cover.

(d) Cessation of beneficial use. The owner shall manage all waste tires that have ceased to be of beneficial use in accordance with K.S.A. 65-3424 et seq., and amendments thereto, and the implementing regulations in article 29. (Authorized by K.S.A. 65-3424h; implementing K.S.A. 2006 Supp. 65-3424; effective Sept. 12, 1997; amended Oct. 26, 2007.)

28-29-29b. Pest control requirements for the storage of new tires, used tires, waste tires, and processed waste tires. (a) Pest control requirements. The owner or operator of each site that contains an accumulation of new tires, used tires, waste tires, or processed waste tires, or any combination of these, shall operate and maintain the accumulation in a manner that controls mosquito breeding and other disease vectors. The determination that mosquitoes are breeding shall be based on the presence of mosquito larvae in the tires or processed waste tires.

(b) Pesticide application. Each person that applies pesticides shall comply with the Kansas pesticide act, K.S.A. 2-2438a et seq. and amendments thereto. (Authorized by K.S.A. 65-3424h; implementing K.S.A. 2006 Supp. 65-3424b; effective Oct. 26, 2007.)

28-29-30. Waste tire processing facility, waste tire collection center, and mobile waste tire processor permits. (a) Submission of application. Each person required to obtain a waste tire processing facility permit, a waste tire collection center permit, or a mobile waste tire processor permit, as specified in K.S.A. 65-3424b and amendments thereto, shall submit an application to the department.

(1) Each application shall be submitted on forms provided by the department.

(2) Each application shall be submitted to the department at least 90 days before operations are planned to begin.

(b) Waste tire processing facility and waste tire collection center permit applications. Each applicant for a waste tire processing facility or waste tire collection center permit shall include the following items in the application:

(1) Proof of consistency with zoning or land use requirements;

(2) a description of the land use within a radius of one-half mile of the facility, identifying all buildings and surface waters;

(3) the following maps:

(A) A site location map showing section, township, range, and site boundaries;

(B) a site layout drawing showing the size and location of all pertinent artificial and natural features of the site, including roads, fire lanes, ditches, berms, waste tire storage areas, structures, wetlands, floodways, and surface waters; and

(C) a topographic map that has a scale of no less than one inch equals 2,000 feet, and that has a contour interval of 10 feet or less;

(4) a design plan, including equipment placement and a process flow diagram;

(5) an operations plan for the processing facility or collection center that includes the following information:

(A) The storage capacity for waste tires and processed waste tires, in passenger tire equivalents;

(B) the procedures that the facility owner or operator proposes to use to meet the mosquito

and rodent control requirements of K.A.R. 28-29-29b;

(C) for waste tire collection centers, the proposed methods and schedule for storage of the waste tires before removal from the site; and

(D) for waste tire processing facilities, the following information:

(i) The proposed methods and schedule for the processing or disposal of waste tires;

(ii) the procedures that the facility owner or operator proposes to use to meet the waste tire processing standards in K.A.R. 28-29-29; and

(iii) a description of all equipment to be used in the waste tire processing operation;

(6) a contingency plan to minimize damage from fire and other emergencies at the site, including procedures for the following:

(A) Minimizing the occurrence or spread of fires;

(B) reporting all environmental problems, including fires, to the department;

(C) remediating the site;

(D) operating the facility when equipment fails; and

(E) operating the facility during inclement weather;

(7) proof that the applicant owns the site or has a lease for the site that runs at least one year. The permit shall be valid only for the location specified on the permit application;

(8) a closure plan that includes the following information:

(A) A description of when and why the operator would suspend the receipt of waste tires at the facility;

(B) a description of how all waste tires and processed waste tires will be removed from the site or otherwise properly disposed of upon closure;

(C) a time schedule for completing the closure procedures; and

(D) a plan for site rehabilitation and remediation;

(9) a closure cost estimate based on the cost to close the facility following the requirements of K.A.R. 28-29-31 and K.A.R. 28-29-31a. The cost of removing processed waste tires from the site shall not be required to be included in the closure cost estimate if the permittee demonstrates to the department that the processed waste tires have a positive market value;

(10) documentation of financial assurance issued in favor of the department that meets the

requirements of K.A.R. 28-29-2101 through K.A.R. 28-29-2113; and

(11) the applicable application fee specified in K.A.R. 28-29-2011.

(c) Mobile waste tire processor permit applications. Each applicant for a mobile waste tire processor permit shall include the following items in the application:

(1) A description of all equipment to be used in the mobile waste tire processing operation;

(2) documentation of financial assurance issued in favor of the department that meets the requirements of K.A.R. 28-29-2101 through K.A.R. 28-29-2113; and

(3) the application fee specified in K.A.R. 28-29-2011.

(d) Permit renewal. As specified in K.S.A. 65-3424b and amendments thereto, each waste tire processing facility permit, waste tire collection center permit, and mobile waste tire processor permit shall be issued for a one-year period. Any permittee may apply to the secretary for permit renewal by submitting the renewal application to the department at least 30 days before the permit expiration date. Each renewal application shall be submitted on forms provided by the department and shall include the following items:

(1) For each waste tire processing facility permit and each waste tire collection center permit, the following items:

(A) An annual operations report that summarizes the information required in K.A.R. 28-29-31a(c);

(B) an updated closure cost estimate;

(C) documentation of updated financial assurance that meets the financial assurance requirements in K.A.R. 28-29-2101 through K.A.R. 28-29-2113; and

(D) the applicable permit renewal fee specified in K.A.R. 28-29-2011; and

(2) for each mobile waste tire processor permit, the following items:

(A) An annual operations report that summarizes the information required in K.A.R. 28-29-31a(c);

(B) documentation of financial assurance that meets the financial assurance requirements in K.A.R. 28-29-2101 through K.A.R. 28-29-2113; and

(C) the permit renewal fee specified in K.A.R. 28-29-2011.

(e) Permit modifications. Any waste tire processing facility, waste tire collection center, or mo-

bile waste tire processor permittee may request from the secretary a permit modification to modify the operations authorized in an unexpired permit. The procedure for modifying permits specified in K.A.R. 28-29-8 shall apply.

(f) Transfers of ownership. The permittee shall provide notice of plans to transfer ownership of any facility or business permitted under these regulations to the department at least 60 days before the transfer. Each permit shall be issued only for the person or persons and the premises or business named in the permit. As specified in K.S.A. 65-3424k and amendments thereto, permits shall not be transferable. (Authorized by K.S.A. 65-3424h; implementing K.S.A. 2006 Supp. 65-3424b; effective, T-28-4-27-92, April 27, 1992; effective June 8, 1992; amended Sept. 12, 1997; amended Oct. 26, 2007.)

28-29-31. Requirements for storage of waste tires, used tires, and processed waste tires. (a) Outdoor storage of waste tires, used tires, or both.

(1) The requirements in this regulation for outdoor storage of tires shall not apply to tires stored in trailers or covered containers.

(2) Each person storing the tires shall meet the pest control standards specified in K.A.R. 28-29-29b.

(b) Outdoor storage of more than 500 used tires, 500 waste tires, or 500 used and waste tires. Each person storing the tires shall meet the following requirements:

(1) Locate the tires outside all wetlands;

(2) store tires that have been or will be stored for more than 30 days by one or more of the following means:

(A) Ricking;

(B) storing in racks; or

(C) storing on tread; and

(3) limit the size of each storage area to less than the following dimensions:

(A) 50 feet in width;

(B) 5,000 square feet in area; and

(C) 10 feet in height.

(c) Outdoor storage of 1,500 or more used tires, waste tires, or used and waste tires. Each person storing the tires shall meet the requirements of subsection (b) of this regulation and the following requirements:

(1) Locate each storage area at least 60 feet from each building;

(2) provide access to each storage area for fire-

fighting equipment by either of the following means:

(A) Developing a 50-foot wide fire lane around the perimeter of each storage area. The person storing the tires shall maintain the fire lane and an approach and access road to each storage area, which shall be passable for any fire-fighting vehicle at all times; or

(B) obtaining certification from the local fire department stating that there is adequate access to each storage area for fire-fighting equipment;

(3) prohibit all activities involving the use of open flames, smoking materials, and other ignition sources within 25 feet of each storage area;

(4) maintain all vegetation within 100 feet of each storage area in a manner that minimizes fire hazard.

(d) Outdoor storage of processed waste tires. The requirements in this regulation for the outdoor storage of processed waste tires shall not apply to processed waste tires stored in trailers or covered containers.

(1) Each person storing processed waste tires in an amount equal to or greater than the amount derived from 500 passenger tire equivalents shall store the processed waste tires according to the requirements in paragraphs (b)(1) and (b)(3) of this regulation, replacing the term "tire" with "processed waste tires."

(2) Each person storing processed waste tires in an amount equal to or greater than the amount derived from 1,500 passenger tire equivalents shall store the processed waste tires according to the requirements in paragraph (d)(1) and in paragraphs (c)(1) through (c)(4) of this regulation, replacing the term "tire" with "processed waste tires."

(e) Removal of contamination. If pyrolytic oil from a tire fire is released into the environment, each person storing the tires or the processed waste tires shall remove the oil and contaminated soil in accordance with the solid and hazardous waste regulations in articles 29 and 31 governing the removal, transportation, and disposal of the material.

(f) Closure of storage sites. When a storage site for waste tires, used tires, or processed waste tires closes, each person storing the tires or processed waste tires shall perform the following:

(1) Remove all waste tires and processed waste tires in accordance with the tire management standards of K.S.A. 65-3424 et seq., and amend-

ments thereto, and the requirements of K.A.R. 28-29-28 through K.A.R. 28-29-33; and

(2) remove all other solid waste to a permitted solid waste disposal area. (Authorized by K.S.A. 65-3406 and 65-3424h; implementing K.S.A. 65-3406 and K.S.A. 2006 Supp. 65-3424b; effective, T-28-4-27-92, April 27, 1992; effective June 8, 1992; amended Sept. 12, 1997; amended Oct. 26, 2007.)

28-29-31a. Requirements for permitted waste tire processing facilities, waste tire collection centers, and mobile waste tire processors. (a) Access for fire-fighting equipment. Each permittee that obtains certification from the local fire department, as specified in K.A.R. 28-29-31, shall submit a copy of the certification to the department.

(b) Site access. The permittee of each waste tire collection center and each waste tire processing facility shall perform the following:

(1) Control access to the site;

(2) post a sign at the entrance of the site stating the following information:

(A) The name of the site;

(B) the permit number;

(C) the site's telephone number, if there is one;

(D) the 24-hour emergency telephone number; and

(E) if the site is open to the public, the hours of operation; and

(3) have an attendant present at all times when the waste tire processing facility or waste tire collection center is open for business.

(c) Recordkeeping. Each permittee shall retain the records required by this subsection at the facility or business for a minimum of three years. All quantities of tires and processed waste tires shall be recorded in passenger tire equivalents.

(1) Mobile waste tire processors. The permittee shall maintain records of the following information for each site at which waste tires were processed:

(A) The address or legal description;

(B) the landowner's name and address;

(C) the dates of arrival and departure of the mobile waste tire processor; and

(D) the quantity of waste tires processed.

(2) Waste tire processing facilities and waste tire collection centers. The permittee shall maintain monthly records of the following information:

(A) The quantity of waste tires received;

(B) for waste tire processing facilities, the quantity of waste tires processed;

(C) the quantity of waste tires and processed waste tires removed from the site; and

(D) each location to which waste tires or processed waste tires have been taken for use or disposal.

(d) Closure of waste tire processing facilities and waste tire collection centers.

(1) The permittee of each waste tire processing facility and each waste tire collection center shall cease to accept waste tires and shall close the waste tire processing facility or waste tire collection center in compliance with these regulations and with any special closure conditions established in the facility permit, if any of the following conditions is met:

(A) The permittee informs the secretary that the site is closed.

(B) A departmental order to cease operations is issued.

(C) A permit compliance schedule specifying closure is to begin.

(D) The owner fails to renew the permit.

(E) The permit is revoked.

(2) If the waste tire processing facility or waste tire collection center closes, the permittee shall perform the following:

(A) Close public access to the waste tire site;

(B) post a notice at the site entrance indicating to the public that the site is closed and, if the site had accepted waste tires from the public, indicating the nearest site where waste tires can be lawfully deposited;

(C) notify the department and the local government having jurisdiction over the site of the closing of the permitted waste tire processing facility or waste tire collection center; and

(D) submit certification to the department that the closure has been completed in compliance with the closure plan.

(3) All financial assurance not needed for the closure or for other purposes under this subsection shall be released to the permittee by the secretary. (Authorized by K.S.A. 65-3424h; implementing K.S.A. 2006 Supp. 65-3424b; effective Oct. 26, 2007.)

28-29-32. Waste tire transporter permits. (a) Submission of application. Each person required to obtain a waste tire transporter permit, as specified in K.S.A. 65-3424b and amendments thereto, shall submit an application to the department.

Each application shall be submitted on forms provided by the department.

(b) Waste tire transporter application. Each applicant for a waste tire transporter permit shall include the following items in the application:

(1) The address or legal description of each location where the waste tires will be transported for storage, processing, or disposal;

(2) an estimate of the number of tires that will be transported each month;

(3) a list of equipment that will be used;

(4) documentation of financial assurance issued in favor of the department that meets the requirements in K.A.R. 28-29-2101 through K.A.R. 28-29-2113; and

(5) the application fee listed in K.A.R. 28-29-2011.

(c) Permit renewal. Each waste tire transporter permit shall be issued for a one-year period. Any permitted waste tire transporter may apply to the secretary for permit renewal by submitting the renewal application to the department at least 30 days before the permit expiration date. Each permit renewal application shall be submitted on a form provided by the department and shall include the following items:

(1) An annual operations report that summarizes the information required in K.A.R. 28-29-33(b);

(2) an updated equipment list;

(3) documentation of updated financial assurance that meets the financial assurance requirements in K.A.R. 28-29-2101 through K.A.R. 28-29-2113; and

(4) the permit renewal fee listed in K.A.R. 28-29-2011.

(d) Multiple business locations. Any corporation that has more than one separate business location may submit one waste tire transporter permit application that provides for services to all of the corporation's locations.

(e) Permits that are no longer active. If a waste tire transporter permit is not renewed, or is revoked or suspended, the former permittee shall remove all copies of the waste tire transporter permit from its vehicles.

(1) The former permittee shall remove all copies of the waste tire transporter permit either on the renewal date or on the day on which the former permittee receives notification that the waste tire transporter permit is no longer active, whichever occurs first.

(2) Within 14 days after revocation, suspension,

or the renewal date, the former permittee shall surrender the original permit to the department and notify the department, in writing, that all copies of the waste tire transporter permit have been removed from all vehicles. (Authorized by K.S.A. 65-3424h; implementing K.S.A. 2006 Supp. 65-3424b; effective, T-28-4-27-92, April 27, 1992; effective June 8, 1992; amended Sept. 12, 1997; amended Oct. 26, 2007.)

28-29-33. Requirements for permitted waste tire transporters. Each person required to obtain a waste tire transporter permit shall perform the following:

(a) Display a copy of the person's current waste tire transporter permit in each vehicle that transports waste tires;

(b) record and maintain for three years the following information regarding activities for each month of operation:

(1) The number of waste tires transported;

(2) the name of the previous owner of the waste tires and the address or legal description of the location from which the waste tires were collected; and

(3) the name of the subsequent owner of the waste tires and the address or legal description of the location at which the waste tires were deposited; and

(c) transport waste tires only to a person or landfill authorized to receive waste tires, pursuant to K.S.A. 65-3424a and amendments thereto. (Authorized by K.S.A. 65-3424h; implementing K.S.A. 2006 Supp. 65-3424b; effective, T-28-4-27-92, April 27, 1992; effective June 8, 1992; amended Sept. 12, 1997; amended Oct. 26, 2007.)

28-29-34 to 28-29-36. (Authorized by K.S.A. 1991 Supp. 65-3424h; implementing K.S.A. 1991 Supp. 65-3424f; effective, T-28-4-27-92, April 27, 1992; effective June 8, 1992; revoked Sept. 12, 1997.)

PART 4.—STANDARDS FOR MANAGEMENT OF HAZARDOUS WASTES

28-29-37 to 28-29-44. (Authorized by K.S.A. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; revoked, E-82-20, Nov. 4, 1981; revoked May 1, 1982.)

28-29-45. (Authorized by K.S.A. 65-3406, 65-3407; effective, E-79-22, Sept. 1, 1978; effective

May 1, 1979; revoked, E-82-8, April 10, 1981; revoked May 1, 1982.)

28-29-46. (Authorized by K.S.A. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; revoked, E-82-20, Nov. 4, 1981; revoked May 1, 1982.)

28-29-47. (Authorized by K.S.A. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; revoked, E-82-8, April 10, 1981; revoked May 1, 1982.)

28-29-48 and 28-29-49. (Authorized by K.S.A. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; revoked, E-82-20, Nov. 4, 1981; revoked May 1, 1982.)

28-29-50. (Authorized by K.S.A. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; revoked, E-82-8, April 10, 1981; revoked May 1, 1982.)

28-29-51 to 28-29-53. (Authorized by K.S.A. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; revoked, E-82-20, Nov. 4, 1981; revoked May 1, 1982.)

28-29-54 to 28-29-56. (Authorized by K.S.A. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; revoked, E-82-8, April 10, 1981; revoked May 1, 1982.)

28-29-57 to 28-29-63. (Authorized by K.S.A. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; revoked, E-82-20, Nov. 4, 1981; revoked May 1, 1982.)

28-29-64. (Authorized by K.S.A. 65-3406; effective, E-82-8, April 10, 1981; revoked, E-82-20, Nov. 4, 1981.)

28-29-65. (Authorized by K.S.A. 65-3406; effective, E-82-8, April 10, 1981; revoked, E-82-20, Nov. 4, 1981; revoked May 1, 1982.)

28-29-66 to 28-29-74. Reserved.

PART 5.—SOLID WASTE MANAGEMENT PLANS

28-29-75. Solid waste management (SWM) plans and committees; general provisions. (a) Each county shall prepare, adopt, and submit to the secretary an SWM plan as specified in K.S.A. 65-3405, and amendments thereto, and K.A.R. 28-29-75 through K.A.R. 28-29-82.

(b) Each county or group of counties shall establish an SWM committee, as specified in K.S.A. 65-3405 and amendments thereto. (Authorized by K.S.A. 65-3405 and K.S.A. 65-3406; implementing K.S.A. 65-3405; effective Jan. 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979; amended March 5, 2004.)

28-29-76. The solid waste management (SWM) committee. Each county commission for counties planning individually, or the SWM committee on behalf of the county commissions of each county participating in a regional SWM plan, shall submit the following information to the department within the deadlines specified:

(a) Within 60 days after the SWM committee is formed, a list of the SWM committee members. The list, and each update to the list, shall include the following information for each SWM committee member:

- (1) The name;
- (2) the political entity, business, or organization that the committee member represents; and
- (3) the address, telephone number, and if available, the e-mail address; and

(b) within 60 days of the event, each change in the designation of the chairperson or the contact person of the SWM committee. (Authorized by K.S.A. 65-3405 and K.S.A. 65-3406; implementing K.S.A. 65-3405; effective Jan. 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979; amended March 5, 2004.)

28-29-77. The SWM plan. (a) Each SWM committee shall establish an SWM plan that meets the requirements of K.S.A. 65-3405, and amendments thereto, and provides the following:

(1) Access for each person in the county or region to service providing for the disposal of all nonhazardous residential, commercial, and industrial solid waste; and

(2) a process for the orderly and systematic elimination of nuisances and pollution sources associated with the following solid waste management activities:

- (A) Storage;
- (B) collection;
- (C) transportation;
- (D) processing; and
- (E) disposal.

(b) Each SWM committee shall include in the SWM plan information, if available, from federal, state, and local sources pertaining to the following topics:

(1) Present and projected population and densities;

(2) present and anticipated industries;

(3) utilities;

(4) solid waste collection, transportation, processing, and disposal facilities;

(5) present and anticipated land, air, and water usage;

(6) present and projected transportation patterns;

(7) present and projected sources of solid wastes;

(8) assessed property values and the ability to fund the SWM system;

(9) types of soil, geology, and hydrology;

(10) air pollution, sewage, water resources, and public water supply; and

(11) local and regional land-use and development plans.

(c) Each SWM committee shall include in the SWM plan all information required by K.S.A. 65-3405, and amendments thereto, and the following information:

(1) A description of all sources of solid waste within the county or region or coming into the county or region;

(2) an estimate of solid waste storage, collection, transportation, processing, and disposal requirements for the area covered by the SWM plan for the next 10 years;

(3) a description of the projected demands and obstacles that could be caused by the existing solid waste storage, collection, transportation, processing, and disposal system;

(4) a description of the selected SWM system, including the following:

(A) Collection, transportation, processing, storage, and disposal methods;

(B) locations for disposal sites or processing facilities, or both; and

(C) plans for management of the wastes listed in K.S.A. 65-3405, and amendments thereto, and the following wastes:

(i) Tires;

(ii) industrial wastes;

(iii) agricultural wastes;

(iv) abandoned automobiles; and

(v) other wastes that could require special handling, transportation, processing, or disposal;

(5) a description of options for development and implementation of recycling, composting, source reduction, and volume-based pricing in relationship to the selected SWM system;

(6) a 10-year timetable for the completion of all necessary steps required to implement the selected SWM system;

(7) a description of local provisions for regulation of storage, collection, transportation, disposal, and other SWM activities;

(8) a description of the responsibilities and actions required by each individual unit of government involved; and

(9) a method for financing each element of the selected SWM system based on cost estimates. Revenue financing, general obligation financing, and other financing methods may be analyzed individually or in combination.

(d) Each county that withdraws from a regional SWM plan shall prepare and submit to the department a new SWM plan meeting the requirements of K.S.A. 65-3405, and amendments thereto, and this regulation.

(1) The county shall submit the new SWM plan to the department on or before the date of the next annual review or the date by which the five-year update of the regional plan is required to be submitted to the department, whichever is first.

(2) The county shall be subject to the conditions of the regional SWM plan until the new SWM plan for the county is approved by the secretary.

(e) A copy of the SWM plan shall be maintained in each county participating in the plan in a place accessible to the public. (Authorized by K.S.A. 65-3406; implementing K.S.A. 65-3405; effective Jan. 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979; amended March 5, 2004.)

28-29-78. Review and adoption of a new SWM plan. (a) Each SWM committee shall develop a new SWM plan in accordance with the requirements of this regulation if any of the following occurs:

(1) The dissolution of a region;

(2) a change in the member counties of a region;

(3) the withdrawal from a region of a county that elects to plan individually;

(4) the formation of a new region; or

(5) the transfer of planning responsibility either to or from a designated city.

(b) The SWM committee shall submit the new SWM plan for review to each official land-use planning agency and each official comprehensive planning agency within the area covered by the

new SWM plan. The SWM committee may revise the new SWM plan based on comments received from one or more planning agencies.

(c) The SWM committee shall submit the new SWM plan for adoption to the county commission of each county or to the governing body of the designated city participating in the plan. All supporting information required by K.S.A. 65-3405, and amendments thereto, and by K.A.R. 28-29-77, including planning agency reviews, shall be submitted with the new SWM plan.

(d) Before adopting the new SWM plan, the county commission or governing body of a designated city shall hold a minimum of one public hearing on the plan. A notice of the public hearing, which shall specify the place and time of the hearing, shall be published at least once in the official newspaper of each county participating in the plan. The hearing shall be held at least 15 days and not more than 30 days after publication of the notice.

(e) The county commission or governing body of a designated city shall inform the SWM committee of the adoption of the plan. (Authorized by K.S.A. 65-3406; implementing K.S.A. 65-3405; effective Jan. 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979; amended March 5, 2004.)

28-29-79. Approval of the SWM plan by the secretary. (a) After adoption of the SWM plan, the county commission, the governing body of the designated city, or the SWM committee shall submit the SWM plan to the secretary for consideration for approval as specified in K.S.A. 65-3405, and amendments thereto.

(b) The following documents shall accompany the SWM plan:

(1) A review from each official land-use planning agency and each official comprehensive planning agency within the area covered by the SWM plan; and

(2) a certification of adoption from the county commission of each county covered by the SWM plan.

(c) If an SWM plan is disapproved by the secretary, the county commission, governing body of the designated city, or SWM committee may revise and submit the SWM plan to the secretary. The revisions shall be made according to K.A.R. 28-29-82. (Authorized by K.S.A. 65-3406; implementing K.S.A. 65-3405; effective Jan. 1, 1972;

amended, E-79-22, Sept. 1, 1978; amended May 1, 1979; amended March 5, 2004.)

28-29-80. Annual reviews of the SWM plan. (a) Review.

(1) Each SWM committee, except as specified in K.S.A. 65-3405 and amendments thereto, shall conduct an annual review of the SWM plan.

(2) The review shall identify all changes made to the SWM system of the county or region since adoption and approval of the SWM plan, the last annual update, or the last five-year review, whichever is most recent.

(b) Revision. If a revision of the SWM plan is required, the SWM committee, except as specified in K.S.A. 65-3405 and amendments thereto, shall follow the procedures specified in K.A.R. 28-29-82.

(c) Adoption. The county commission or governing body of the designated city shall inform the SWM committee of the adoption of the review.

(d) Submission.

(1) The results of the annual review shall be submitted to the secretary on or before the anniversary date of approval of the SWM plan or the last five-year review, whichever is more recent.

(2) One of the following groups shall submit the results of the annual review to the department:

(A) For individual county SWM plans without a designated city, the county commission;

(B) for SWM plans with a designated city, the governing body of the designated city; or

(C) for regional SWM plans, the SWM committee.

(3) The following documents shall be submitted to the department with the results of the annual review:

(A) A list of the current SWM committee members, as specified in K.A.R. 28-29-76; and

(B) a certification of adoption from the county commission of each county participating in the SWM plan. (Authorized by K.S.A. 65-3406; implementing K.S.A. 65-3405; effective Jan. 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979; amended March 5, 2004.)

28-29-81. Five-year reviews of the SWM plan. (a) Review and revision. Each SWM committee shall review and revise the SWM plan within five years of the original SWM plan approval date or within five years of the previous five-year review approval date, whichever is more recent.

(1) The revision shall include, at a minimum, updates of the 10-year projections for SWM practices and needs and shall contain any changes in the SWM system according to the requirements specified in K.A.R. 28-29-77.

(2) The SWM committee shall revise the SWM plan according to the procedures specified in K.A.R. 28-29-82.

(b) Public hearing. One of the county commissions participating in the plan or the governing body of the designated city shall hold a public hearing in accordance with K.S.A. 65-3405 and amendments thereto.

(1) A notice of the public hearing, specifying the place and time of the hearing, shall be published at least once in the official newspaper of each designated city and each county participating in the plan.

(2) The hearing shall be held at least 15 days and not more than 30 days after publication of the notice.

(3) Any county commission or governing body of the designated city participating in the plan may hold additional public hearings.

(c) Submission of the SWM plan. Pursuant to K.S.A. 65-3405 and amendments thereto, one of the following shall submit the revised SWM plan to the secretary on or before the five-year anniversary date of approval of the SWM plan or the last five-year review, whichever is more recent:

(1) The county commission;

(2) the governing body of the designated city; or

(3) the SWM committee. (Authorized by K.S.A. 65-3406; implementing K.S.A. 65-3405; effective Jan. 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979; amended March 5, 2004.)

28-29-82. Revisions to the SWM plan.

(a) Each SWM committee shall revise the SWM plan if any of the following conditions is met:

(1) A waste management activity that is specifically required or precluded under the current SWM plan is proposed to be changed.

(2) Any of the following waste management activities has occurred:

(A) The availability of waste collection services within the planning area has been reduced or expanded for some or all waste generators.

(B) A solid waste facility that is subject to permitting requirements under K.S.A. 65-3407, and

amendments thereto, has been added or eliminated.

(C) Non-permitted recycling services have been added or eliminated.

(3) One or more counties have been added to the plan.

(4) One or more counties have withdrawn from the plan.

(5) A change to the implementation schedule or financing methods specified in the SWM plan has occurred or will occur.

(6) Revisions are required as part of the five-year review to extend the planning horizon to 10 years.

(b) If the approved SWM plan does not meet the requirements of the solid waste management statutes or regulations, or both, a revision of the approved SWM plan may be required by the secretary. If a revision is required, written notice shall be provided by the secretary to each county commission, or the governing body of the designated city, covered by the SWM plan.

(c) Each revised SWM plan shall be reviewed by the official land-use planning agency and each official comprehensive planning agency within the area covered by the SWM plan.

(d) Each revised SWM plan shall be adopted according to the procedures specified in K.A.R. 28-29-78(b) and (d), except for regional SWM plans revised at unscheduled intervals, which shall be adopted in accordance with K.S.A. 65-3405 and amendments thereto. Adoption of the revised SWM plan by the county commission or commissions shall be conducted in an open meeting and shall provide an opportunity for public input.

(e) The county commission, the governing body of the designated city, or the SWM committee shall submit the revised SWM plan to the secretary for consideration for approval in accordance with K.A.R. 28-29-79.

(f) The county commission, or the governing body of the designated city, shall ensure that approved revisions of the SWM plan are incorporated in public copies of the plan maintained in accordance with K.A.R. 28-29-77. (Authorized by K.S.A. 65-3406; implementing K.S.A. 65-3405; effective Jan. 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979; amended March 5, 2004.)

28-29-83. (Authorized by K.S.A. 1978 Supp. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; revoked May 10, 1996.)

PART 6.—FINANCIAL REQUIREMENTS

28-29-84. Permit renewal; solid waste permit fees. (a) General provisions. Each permit issued by the department for any solid waste disposal facility or area, processing facility, incinerator, transfer station, composting plant or area and reclamation facility may be renewed on or before the anniversary date of the permit each year in the following manner.

(1) Each solid waste facility operating in Kansas pursuant to a valid existing permit shall submit to the department, on or before the anniversary date of the permit, a report of the permitted activities on forms provided by the department.

(2) The annual permit renewal fee shall accompany the report. Action to approve the renewals of the permit shall not begin until such time as a properly completed report and the appropriate annual permit renewal fee are received by the department.

(b) Failure to submit. Failure to submit a complete annual report and the annual permit renewal fee on or before the anniversary date of the permit each year may subject the permit holder to denial, revocation, or suspension of the permit.

(c) Fee schedule. The fee for a permit to operate a solid waste disposal area or facility shall be as follows.

(1) The fee for an application for a proposed facility for which no permit has previously been issued by the department, or for reapplication due to loss of the permit resulting from departmental action, including revocation, denial or suspension shall be:

Incinerator	\$5,000.00
Industrial solid waste disposal area	\$3,000.00
Municipal solid waste disposal area	\$5,000.00
Processing facility	\$2,000.00
Reclamation facility	\$2,000.00
Solid waste compost facility	\$ 250.00
Transfer station	\$1,000.00

(2) Each facility or disposal area operating pursuant to a valid, current permit issued by the department shall be required to pay an annual permit renewal fee. The annual permit renewal fees shall be:

Incinerator	\$1,000.00
Industrial solid waste disposal area	\$1,000.00
Municipal solid waste disposal area	\$2,000.00
Processing facility	\$1,000.00
Reclamation facility	\$1,000.00
Solid waste compost facility	\$ 250.00
Transfer station	\$ 500.00

(d) Construction and demolition landfills.

(1) The fee for an application for a proposed construction and demolition disposal facility for which no permit has previously been issued by the department or as otherwise set forth in these regulations shall be as follows:

(A) each facility whose permit application projects receipt of less than 1,000 tons annually: \$250.00;

(B) each facility whose permit application projects receipt of more than 1,000 and less than 10,000 tons annually: \$500.00; and

(C) each facility whose permit application projects receipt of more than 10,000 tons annually: \$1,000.00.

(2) Each facility operating pursuant to a valid, current permit issued by the department shall be required to pay an annual permit renewal fee. The annual permit renewal fee shall be as follows:

(A) for each facility receiving less than 1,000 tons annually: \$125.00;

(B) for each facility receiving more than 1,000 and less than 10,000 tons annually: \$250.00; and

(C) for each facility receiving more than 10,000 tons annually: \$500.00.

(3) Fees for each facility reapplying for a permit due to loss of the permit resulting from departmental action, including revocation, denial or suspension shall be determined in accordance with paragraph (d)(1) of this regulation based on the tonnage received the 12 months prior to the revocation, denial or suspension of the permit.

(4) To determine the annual fee due, the construction and demolition disposal facility may determine the volume of waste received during the previous year and convert this volume to an equivalent weight basis using the following conversion factor: 1 cubic yard = 1,250 pounds.

(e) Multiple activities. Any person conducting more than one of the activities listed in K.A.R. 28-29-84(c)(1) at one location shall pay a single fee. This fee shall be in the amount specified for the activity having the highest fee of those conducted. (Authorized by K.S.A. 1993 Supp. 65-3406, as amended by L. 1994, Ch. 283, sec. 2; implementing K.S.A. 1993 Supp. 65-3407, as amended by L. 1994, Ch. 283, sec. 3; effective, T-28-3-15-93, March 15, 1993; effective May 17, 1993; amended Aug. 28, 1995.)

28-29-85. State solid waste tonnage fees. (a) General provisions. The operator of each solid waste disposal area in Kansas shall pay to the

department a tonnage fee for each ton or equivalent volume of solid waste received and disposed of at the facility during the preceding reporting period. The fee shall be paid each reporting period until the facility no longer receives waste and begins departmentally approved closure activities. Municipal solid waste disposal areas receiving 50,000 tons or more of solid waste annually shall file the reports required by subsection (b) of this regulation and pay their tonnage fee monthly, on or before the last day of the following month. Municipal solid waste disposal areas receiving less than 50,000 tons of solid waste annually, and all other solid waste disposal areas shall file reports and pay their tonnage fee quarterly, on or before the last day of April, July, October and January.

(b) Certification and late fees. The operator of each solid waste disposal area shall certify, on a form provided by the department, the amount, source and type of solid waste received, processed, recycled, and disposed of during the preceding reporting period. Any operator failing to remit the appropriate tonnage fee and submit the report within 45 days after each reporting period shall pay a late processing fee of one and one-half percent per month on the unpaid balance from the date the fee was due until paid.

(c) Determination of waste tonnages.

(1) Operator estimates. The operator of each municipal solid waste disposal area that receives 50,000 tons or more of solid waste annually shall use actual weight records. The operator of each municipal solid waste disposal area that receives less than 50,000 tons of solid waste annually shall, subject to department approval, use one of the following methods for determining the number of tons of waste disposed of at the solid waste disposal area.

(A) The operator may use actual weight records.

(B) The operator may use actual volume records based upon direct aerial and field survey techniques, using the conversion factor of 1,000 pounds per cubic yard less a department approved deduction for cover material.

(C) The operator may use actual volume records based upon daily logs which record the source, type and measurement or estimate of each load using the conversion factors as specified in subsection (d) of this regulation.

(D) The operator of a landfill serving one county or an identifiable population of less than 20,000 may use a per capita waste generation rate

charge equivalent of .8 ton per person per year. This generation rate may only be used during calendar year 1993. This method may be used after December 31, 1993, only with specific departmental approval.

(2) Other disposal site estimates. All other solid waste disposal sites shall, subject to departmental approval, use one of the methods provided in paragraph (c)(1)(A), (c)(1)(B) or (c)(1)(C) of this regulation.

(3) Departmental estimates. The department may estimate the number of tons received at a solid waste disposal area. The estimate may be based upon the number of tons received and reported for the previous reporting period, or any other recognized method.

(d) Payment calculation. The solid waste tonnage fee of \$1.50 per ton shall be calculated on department forms. If volume records are used, the following volume to weight factors shall be used to calculate tonnage unless the operator demonstrates to the department that a different conversion factor is appropriate.

Municipal solid waste (as delivered)

Residential/commercial	
loose	325 pounds/cubic yard
compacted	650 pounds/cubic yard
Industrial	
general	330 pounds/cubic yard
liquids/sludges	8.3 pounds/gallon
Construction demolition	1,250 pounds/cubic yard

(e) Exemptions. The state solid waste tonnage fee shall not apply to non-hazardous waste that is received at a solid waste disposal area, and recycled, reclaimed or reused. Such items include scrap and composted wastes. (Authorized by K.S.A. 1993 Supp. 65-3406, as amended by L. 1994, Ch. 283, sec. 2; implementing K.S.A. 1993 Supp. 65-3415b; effective, T-28-3-15-93, March 15, 1993; effective May 17, 1993; amended Aug. 28, 1995.)

28-29-98. This regulation shall be revoked on and after February 24, 2000. (Authorized by K.S.A. 1997 Supp. 65-3406; implementing K.S.A. 1997 Supp. 65-3401; effective, T-28-9-30-93, Sept. 30, 1993; effective Nov. 22, 1993; amended May 16, 1994; amended Aug. 22, 1994; amended April 9, 1996; amended April 9, 1997; amended July 24, 1998; revoked Feb. 24, 2000.)

28-29-99. (Authorized by K.S.A. 65-3406; amended by L. 1993, Ch. 274, Sec. 2; implementing K.S.A. 65-3401; effective, T-28-9-30-93,

Sept. 30, 1993; effective Nov. 22, 1993; revoked May 16, 1994; revoked Aug. 22, 1994.)

PART 7.—MUNICIPAL SOLID WASTE LANDFILLS

28-29-100. Applicability. (a) The provisions of K.A.R. 28-29-100 through K.A.R. 28-29-121 shall apply to all municipal landfills receiving waste on or after October 9, 1991. Facilities receiving waste after October 9, 1991, but that stop receiving waste before October 9, 1993 shall only be subject to the final cover requirements in K.A.R. 28-29-121.

(b) Each existing unit or lateral expansion receiving flood-related waste from federally-designated areas within the major disaster areas declared by the president during the summer of 1993 pursuant to 42 U.S.C. 5121 *et seq.*, shall be designated by the director of the division of environment in accordance with the following:

(1) If it is determined by the director of the division of environment that a unit is needed to receive flood-related waste from a federally-designated disaster area, as specified in this regulation, that unit may continue to accept waste prior to April 9, 1994 without being subject to the requirements of K.A.R. 28-29-100 through K.A.R. 28-29-121, except as provided in subsection (a) of this regulation.

(2) Any unit that receives an extension in accordance with paragraph (b)(1) of this regulation may continue to accept waste for a maximum of six additional months beyond April 9, 1994 without being subject to the requirements of K.A.R. 28-29-101 through K.A.R. 28-29-121, except as provided in subsection (a) of this regulation, if it is determined by the director of the division of environment that the unit is still needed to receive flood-related waste from a federally-designated disaster area as specified in this regulation.

(3) Any unit receiving an extension under paragraphs (b)(1) or (b)(2) of this regulation which accepts waste under any circumstances on or after October 9, 1994 shall be subject to K.A.R. 28-29-101 through K.A.R. 28-29-121.

(c) Any unit that meets the small landfill requirements of K.A.R. 28-29-103 may accept waste on or before October 9, 1997 without being subject to the requirements of K.A.R. 28-29-100 through K.A.R. 28-29-121, except as provided in subsection (a) of this regulation.

(d) Any portions of K.A.R. 28-29-101 through 28-29-121 which contain requirements different from those contained in K.A.R. 28-29-23 shall su-

persede the requirements of K.A.R. 28-29-23. (Authorized by K.S.A. 1995 Supp. 65-3406; implementing K.S.A. 65-3401; effective Oct. 24, 1994; amended Dec. 13, 1996.)

28-29-101. (Authorized by K.S.A. 1993 Supp. 65-3406; implementing K.S.A. 65-3401; effective Oct. 24, 1994; revoked May 30, 2003.)

28-29-102. Location restrictions. (a) Airport safety.

(1) Each owner or operator of a new MSWLF unit and existing MSWLF unit which is located within 10,000 feet (3,048 meters) of any airport runway end used by turbojet aircraft or within 5,000 feet (1,524 meters) of any airport runway end used by only piston-type aircraft, shall demonstrate to the department that the unit is designed and operated so that the unit does not pose a bird hazard to aircraft.

(2) Each owner or operator proposing to site a new unit within a five-mile radius of any airport runway end used by turbojet or piston-type aircraft shall notify the affected airport and the federal aviation administration (FAA).

(3) The owner or operator shall place a copy of the demonstration in the operating record.

(4) For purposes of this subsection:

(A) "Airport" means public-use airport open to the public without prior permission and without restrictions within the physical capacities of available facilities.

(B) "Bird hazard" means an increase in the likelihood of bird and aircraft collisions that may cause damage to the aircraft or injury to its occupants.

(b) Floodplains.

(1) Owners or operators of new MSWLF units and existing MSWLF units located in 100-year floodplains must demonstrate to the department that the unit will not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain, or result in washout of solid waste so as to pose a hazard to human health and the environment.

(2) The owner or operator shall place a copy of the demonstration in the operating record.

(3) For purposes of this subsection:

(A) "Floodplain" means the lowland and relatively flat areas adjoining inland waters, including flood-prone areas that are inundated by the 100-year flood.

(B) "100-year flood" means a flood that has a 1% or greater chance of recurring in any given

year or a flood of a magnitude equalled or exceeded once in 100 years on the average over a significantly long period.

(C) "Washout" means the carrying away of solid waste by waters of the base flood.

(c) Wetlands.

(1) New MSWLF units shall not be located in wetlands, unless the owner or operator demonstrates to the department that:

(A) there is no practicable alternative to the proposed MSWLF that does not also involve wetlands;

(B) the construction and operation of the unit will not:

(i) cause or contribute to violations of any applicable Kansas water quality standard;

(ii) violate any applicable toxic effluent standard or prohibition under section 307 of the clean water act, 33 U.S.C. 1317;

(iii) jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of a critical habitat, protected under the endangered species act of 1973; and

(iv) violate any requirement under the marine protection, research, and sanctuaries act of 1972 for the protection of a marine sanctuary;

(C) the unit will not cause or contribute to significant degradation of wetlands. The owner or operator shall demonstrate the integrity of the unit and its ability to protect ecological resources by addressing the following factors:

(i) erosion, stability, and migration potential of native wetland soils, muds and deposits used to support the unit;

(ii) erosion, stability, and migration potential of dredged and fill materials used to support the unit;

(iii) the volume and chemical nature of the waste managed in the unit;

(iv) impacts on fish, wildlife, and other aquatic resources and their habitat from release of the solid waste;

(v) the potential effects of catastrophic release of waste to the wetland and the resulting impacts on the environment; and

(vi) any additional factors, as necessary, to demonstrate that ecological resources in the wetland are sufficiently protected;

(D) steps have been taken to attempt to achieve no net loss of wetlands, as defined by acreage and function, by first avoiding impacts to wetlands to the maximum extent practicable, then

minimizing unavoidable impacts to the maximum extent practicable, and finally offsetting remaining unavoidable wetland impacts through all appropriate and practicable compensatory mitigation actions, including restoration of existing degraded wetlands or creation of man-made wetlands; and

(E) sufficient information is available to make a reasonable determination with respect to these demonstrations.

(2) The owner or operator shall place a copy of the demonstration in the operating record.

(3) For purposes of this subsection, "wetlands" means those areas that meet the definition provided in the "Corps of Engineers Wetlands Delineation Manual - Technical Report Y-87-1," as published January, 1987 by the Department of the Army Waterways Experiment Station, Corps of Engineers.

(d) Fault areas.

(1) New MSWLF units shall not be located within 60 meters (200 feet) of a fault that has had displacement in holocene time unless the owner or operator demonstrates to the department that an alternative setback distance of less than 60 meters (200 feet) will prevent damage to the structural integrity of the unit and will be protective of human health and the environment.

(2) The owner or operator shall place a copy of the demonstration in the operating record.

(3) For the purposes of this subsection:

(A) "Fault" means a fracture or a zone of fractures in any material along which strata on one side have been displaced with respect to that on the other side.

(B) "Displacement" means the relative movement of any two sides of a fault measured in any direction.

(C) "Holocene" means the most recent epoch of the quaternary period, extending from the end of the pleistocene epoch to the present.

(e) Seismic impact zones.

(1) New MSWLF units shall not be located in seismic impact zones, unless the owner or operator demonstrates to the department that all containment structures, including liners, leachate collection systems, and surface water control systems, are designed to resist the maximum horizontal acceleration in lithified earth material for the site.

(2) The owner or operator shall place a copy of the demonstration in the operating record.

(3) For the purpose of this subsection the following definitions shall apply:

(A) "Seismic impact zone" means an area with a 10% or greater probability that the maximum horizontal acceleration in lithified earth material, expressed as a percentage of the earth's gravitational pull (g), will exceed 0.10g in 250 years.

(B) "Maximum horizontal acceleration in lithified earth material" means the maximum expected horizontal acceleration depicted on a seismic hazard map, with a 90% or greater probability that the acceleration will not be exceeded in 250 years, or the maximum expected horizontal acceleration based on a site-specific seismic risk assessment.

(C) "Lithified earth material" means all rock, including all naturally occurring and naturally formed aggregates or masses of minerals or small particles of older rock that formed by crystallization of magma or by induration of loose sediments. This term shall not include human-made materials, including fill, concrete, and asphalt, or unconsolidated earth materials, soil, or regolith lying at or near the earth surface.

(f) Unstable areas.

(1) Owners or operators of new MSWLF units and existing units located in an unstable area shall demonstrate to the department that engineering measures have been incorporated into the unit's design to ensure that the integrity of the structural components of the MSWLF unit will not be disrupted. The owner or operator shall consider the following factors, at a minimum, when determining whether an area is unstable:

(A) on-site or local soil conditions that may result in significant differential settling;

(B) on-site or local geologic or geomorphologic features; and

(C) on-site or local human-made features or events both surface and subsurface.

(2) The owner or operator shall place a copy of the demonstration in the operating record.

(3) For purposes of this subsection:

(A) "Unstable area" means a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity of some or all of the MSWLF structural components responsible for preventing releases from a landfill. Unstable areas may include poor foundation conditions, areas susceptible to mass movements, and karst terranes.

(B) "Structural components" means liners, leachate collection systems, final covers, run-on systems, run-off systems, and any other component used in the construction and operation of the

MSWLF that is necessary for protection of human health and the environment.

(C) "Poor foundation conditions" means those areas where features exist which indicate that a natural or human-induced event may result in inadequate foundation support for the structural components of an MSWLF unit.

(D) "Areas susceptible to mass movement" means those areas of influence including areas characterized as having an active or substantial possibility of mass movement, where the movement of earth material at, beneath, or adjacent to the MSWLF unit, because of natural or man-induced events, results in the downslope transport of soil and rock material by means of gravitational influence. Areas of mass movement may include:

- (i) landslides;
- (ii) avalanches;
- (iii) debris slides and flows;
- (iv) soil fluctuation;
- (v) block sliding; and
- (vi) rock fall.

(E) "Karst terranes" means areas where karst topography, with its characteristic surface and subterranean features, is developed as the result of dissolution of limestone, dolomite, or other soluble rock. Characteristic physiographic features present in karst terranes may include:

- (i) sinkholes;
 - (ii) sinking streams;
 - (iii) caves;
 - (iv) large springs; and
 - (v) blind valleys.
- (g) Closure of existing MSWLF units.

(1) Existing units that cannot make the demonstration pertaining to airports, floodplains, or unstable areas, shall close by October 9, 1996, in accordance with K.A.R. 28-29-121 and conduct post-closure activities in accordance with K.A.R. 28-29-121.

(2) The deadline for closure required by subsection (g)(1) may be extended up to two years if the owner or operator demonstrates to the department that there is no:

- (A) available alternative disposal capacity; and
- (B) immediate threat to human health and the environment.

(h) Kansas historic preservation act. Each new MSWLF unit shall be located so as not to pose a threat of harm or destruction to the essential features of an irreplaceable historic or archaeological site that is listed pursuant to the Kansas historic preservation act, K.S.A. 75-2716 and 75-2724.

(i) Endangered species conservation act. Each new MSWLF unit shall be located so as not to:

- (1) jeopardize the continued existence of any designated endangered species;
- (2) result in the destruction or adverse modification of the critical habitat listed for such species; or
- (3) cause or contribute to the taking of any endangered or threatened species of plant, fish or wildlife listed pursuant to the endangered species act 16 U.S.C. 1531 *et seq.*, or Kansas non-game and endangered species conservation act, K.S.A. 32-957 *et seq.*, and K.S.A. 32-1009, *et seq.*

(j) Buffer zones.

(1) No part of a newly permitted MSWLF unit shall be located closer than 152 meters (500 feet) from an occupied dwelling, school, or hospital that was occupied on the date when the owner or operator first applied for a permit to develop the unit or the facility containing the unit, unless the owner of such dwelling, school, or hospital consents in writing.

(2) All newly permitted MSWLF units shall maintain a minimum 46 meters (150 feet) buffer from the edge of the planned MSWLF unit to the owner's or operator's property line.

(3) The owner or operator may petition the director for a reduction in the buffer zone distances, provided the county commission of the county in which the landfill is located approves the request.

(k) Navigable streams.

(1) A new MSWLF unit shall not be located within one-half mile of a navigable stream used for interstate commerce.

(2) For purposes of this subsection, "navigable stream" means any water defined as navigable water of the United States under 33 CFR Part 329 as in effect on July 1, 1993.

(3) The provisions of this subsection shall not apply to:

(A) lateral expansion onto land contiguous to a permitted MSWLF in operation on July 1, 1991; or

(B) renewal of an existing permit for a permitted MSWLF on July 1, 1991.

(l) Public drinking water supplies.

(1) No new MSWLF shall be located within one mile of a surface water intake source for a public water supply system.

(2) For purposes of this subsection:

(A) "Surface water" means any water defined under K.A.R. 28-15-11.

(B) "Public water supply system" means any

system defined under K.A.R. 28-15-11. (Authorized by K.S.A. 1993 Supp. 65-3406; implementing K.S.A. 65-3401; effective Oct. 24, 1994.)

28-29-103. Small landfills. (a) Any owner or operator of a new or existing municipal landfill may request an exemption from the design requirements in K.A.R. 28-29-104, as amended, if these conditions are met:

(1) the MSWLF receives and disposes of less than 20 tons of municipal solid waste daily, based on an annual average;

(2) there is no evidence of groundwater contamination from the MSWLF;

(3) the MSWLF is in an area that annually receives less than or equal to 25 inches of precipitation; and

(4) the community or communities utilizing the MSWLF have no practicable waste management alternative.

(b) Each owner or operator requesting the small landfill exemption shall demonstrate compliance with the conditions in subsection (a) by submitting the following documentation to the department for review and approval:

(1) actual records of past operations or estimates of the amount of solid waste disposed on a daily basis to demonstrate that the MSWLF meets the condition in paragraph (a)(1);

(2) site-specific data demonstrating that the MSWLF meets the condition in paragraph (a)(2);

(3) climatic data obtained for a minimum 30-year averaging period demonstrating that the MSWLF meets the condition in paragraph (a)(3); and

(4) one of the following statements to demonstrate that the MSWLF meets the condition in paragraph (a)(4):

(A) a statement containing data showing to the department that the closest MSWLF is more than 75 miles away; or

(B) written certification, from the board of county commissioners in the county where the landfill is located, that a landfill located less than 75 miles away is not a practicable alternative.

(c) The owner or operator of each small landfill meeting the exemption criteria shall comply with the location restrictions, the operating standards, the closure and post-closure standards, and the financial assurance standards for municipal solid waste landfills.

(1) Each "existing small landfill" for the purposes of K.A.R. 28-29-103, as amended, means

any area permitted for municipal solid waste disposal on or before October 9, 1993 and any area permitted for municipal solid waste disposal through a permit amendment prior to October 9, 1997 and contiguous to the area permitted before October 9, 1993.

(2) Each "new small landfill" means any area not permitted for municipal solid waste disposal prior to October 9, 1993 or not incorporated into an existing permit by amendment prior to October 9, 1997.

(d) Each existing small landfill meeting the exemption criteria in subsection (a) and receiving waste on or after October 9, 1997 shall comply with subsection (f), (g) or (h) of this regulation in order to demonstrate that naturally occurring geological conditions provide sufficient protection against groundwater contamination.

(e) Each new small landfill or unit meeting the exemption criteria in subsection (a) shall comply with subsection (f) of this regulation and shall be constructed with the following:

(1) a liner consisting of the following:

(A) a minimum of two feet of compacted clay with a hydraulic conductivity of no more than 1×10^{-6} cm/sec; and

(B) a leachate collection system; or

(2) *in situ* material or an alternate, approved constructed liner meeting the demonstration standards for groundwater modeling prescribed in subsection (g) or the liner performance standard prescribed in subsection (h) of this regulation. Alternate constructed liners shall be considered for approval by the department when these conditions are met:

(A) the technology or material has been successfully utilized in at least one application similar to the proposed application;

(B) methods for ensuring quality control during the manufacture and construction of the liner can be implemented; and

(C) the owner or operator can provide documentation in the operating record that the provisions set forth in this subsection have been satisfied.

(f) Groundwater monitoring, sampling, and analysis.

(1) The owner or operator of each landfill meeting the exemption criteria shall install a groundwater monitoring system developed by a qualified groundwater scientist as defined in K.A.R. 28-29-111 and approved by the depart-

ment. The groundwater monitoring system shall fulfill these requirements:

(A) have monitoring wells located on the property permitted for solid waste disposal, and yield groundwater samples from the uppermost aquifer representing the quality of groundwater passing the point of compliance as defined by K.A.R. 28-29-101(aa), as amended;

(B) consist of a sufficient number of wells to accurately determine the groundwater flow gradient, including a minimum of two down gradient wells;

(C) have monitoring wells located at a distance no greater than 150 meters or 492 feet from the planned edge of the unit; and

(D) have monitoring wells located at least 50 feet from the property boundary for all new small landfills. The "upper most aquifer," for the purposes of K.A.R. 28-29-103, as amended, means the first saturated zone able to fully recharge within 24 hours after one well volume is removed.

(2) The owner or operator of each small landfill meeting the exemption criteria shall maintain and operate the monitoring system in accordance with K.A.R. 28-29-111, paragraphs (f)(2) and (f)(3), as amended.

(3) The owner or operator of each small landfill meeting the exemption criteria shall perform the following:

(A) sample each down gradient monitoring well semiannually during the active site life and post-closure period to ensure that contaminate levels are within the parameters listed in Table 1 of this regulation;

(B) measure the water depth in all monitoring wells during the semiannual sampling to verify the groundwater flow gradient; and

(C) submit the results of analytical testing and verification of the groundwater flow gradient to the department within 45 days of receipt of the test results.

TABLE 1
Monitoring Constituents for
Exempt Small Landfills

Constituent	Maximum Contaminant Level (MCL) (in milligrams per liter mg/l)
VOLATILE ORGANIC COMPOUNDS	
Benzene	0.005
1,2-Dichloroethane	0.005
1,1-Dichloroethene	0.007
1,2-Dichloropropane	0.005
Ethylbenzene	0.7

Styrene	0.1
Tetrachloroethene	0.005
Toluene	1.0
1,1,1-Trichloroethane	0.2
Trichlorethene	0.005
Vinyl Chloride	0.002
Total Xylenes	10.0
METALS (dissolved)	
Cadmium	0.005
Chromium (total)	0.05

(4) If the owner or operator of any existing small landfill demonstrates that naturally occurring geological conditions provide sufficient protection against groundwater contamination by compliance with subsection (g) or subsection (h) of this regulation, the owner or operator may reduce the sampling frequency established in paragraph (f)(3) from semiannual samples to annual samples.

(5) The groundwater monitoring program shall include consistent sampling and analysis procedures in accordance with K.A.R. 28-29-112, subsections (a), (b)(1) through (b)(4), (c), and (d), as amended.

(6) If any monitoring well exceeds the maximum contaminant level of any constituent listed in Table 1 in subsection (f) of this regulation, the owner or operator shall sample the well again, within 30 calendar days of the finding. If the second sample confirms that contamination levels exceed the maximum contaminant level of any constituent listed in Table 1, the exempt status of the landfill shall be revoked, and the owner or operator shall comply with K.A.R. 28-29-104 and K.A.R. 28-29-110 through 28-29-114, as amended.

(7) The groundwater sampling and analysis requirements of subsection (f) of this regulation may be suspended by the department at existing small landfills if the owner or operator demonstrates the following:

(A) naturally occurring geological conditions provide sufficient protection against groundwater contamination as evidenced by compliance with subsection (g) or (h) of this regulation;

(B) the uppermost aquifer does not exist within a depth of 150 feet below the lowest depth of the municipal solid waste; and

(C) no potential for migration of hazardous constituents exists from that MSWLF unit to the uppermost aquifer during the active life of the unit and the post-closure care period. This dem-

onstration shall be certified by a qualified groundwater scientist and approved by the department.

(8) The groundwater monitoring, sampling, and analysis required in subsection (f) of this regulation may be reduced or suspended by the department based on site-specific data.

(g) Groundwater modeling.

(1) Each owner or operator of a small landfill meeting the exemption criteria shall demonstrate that a constructed liner at the site or naturally occurring strata prohibit contaminants from exceeding the concentration values listed in Table 1 of K.A.R. 28-29-104, subsection (e), as amended, in the uppermost aquifer at the point of compliance based on fate and transport modeling of predicted landfill leachate. The point of compliance shall be located as follows:

(A) within 150 meters or 492 feet of the edge of the planned unit boundary; and

(B) on the owner's or operator's property.

(2) When approving modeling demonstrations, the following factors may be considered by the department:

(A) the hydrogeologic characteristics of the facility and surrounding land;

(B) the climatic factors of the area; and

(C) the volume and physical and chemical characteristics of the leachate. The expected performance of the design shall be evaluated at maximum annual leachate flow conditions.

(3) Each model demonstration developed pursuant to subsection (g)(1) of this regulation shall be certified by a qualified groundwater scientist.

(4) Each owner or operator of a small landfill performing the groundwater modeling demonstration shall comply with the groundwater monitoring, sampling, and analysis requirements prescribed in subsection (f).

(h) Liner performance standard.

(1) Each owner or operator shall demonstrate that *in situ* material meets the liner performance standard by submitting the following information for each small landfill unit:

(A) certification from a professional engineer licensed in Kansas that the *in situ* material immediately below the bottom of the municipal solid waste layer but prior to encountering groundwater meets these conditions:

(i) has a permeability equivalent to two feet of 1×10^{-6} cm/sec material; and

(ii) within the equivalently permeable layer, has no soil layer or stratum with a permeability greater than 1×10^{-4} cm/sec and with sufficient

continuity and thickness to allow groundwater to flow laterally off the owner's property; and

(iii) shows consistency in all boring data.

(B) data from a minimum of one centrally located boring that provides a soil profile to a depth of the following:

(i) the water table;

(ii) 46 meters or 150 feet; or

(iii) a point where a minimum of 10 feet of 1×10^{-9} cm/sec material is encountered;

(C) data from a minimum of four additional borings of sufficient depths to provide data supporting the certification in paragraph (h)(1)(A) of this regulation;

(D) laboratory soil or field permeability data sufficient to provide data supporting the certification in paragraph (h)(1)(A) of this regulation; and

(E) evidence that the highest water table of any underlying groundwater is a minimum of 1.5 meters or five feet below the bottom of the material used to make the demonstration that the *in situ* material meets the liner performance standard.

(2) When approving a liner demonstration for compliance with this subsection, the following minimum factors shall be considered by the department:

(A) the hydrogeologic characteristics of the facility and surrounding land;

(B) the climatic characteristics of the area; and

(C) the volume and physical and chemical characteristics of the leachate.

(3) Each owner or operator demonstrating the liner performance standard shall comply with the groundwater monitoring, sampling, and analysis requirements prescribed in subsection (f).

(i) Each owner or operator shall document in the operating record that the small landfill unit meets the requirements in subsection (f), (g) or (h) of this regulation. (Authorized by K.S.A. 1995 Supp. 65-3406; implementing K.S.A. 65-3401; effective Oct. 24, 1994; amended Dec. 13, 1996.)

28-29-104. Design standards. (a) General design standards.

(1) Existing units. Any portion of a trench or area of an existing unit not filled to its permitted design capacity by October 9, 1996, shall be considered a vertical expansion subject to the standards in K.A.R. 28-29-104(a)(2), or a new unit subject to the standards in K.A.R. 28-29-104(a)(3).

(2) Vertical expansions.

(A) Any proposed vertical expansion shall be considered a significant modification to the facility and subject to permit modification procedural requirements.

(B) Any proposed vertical expansion shall meet the following requirements, in addition to any other applicable MSWLF regulations.

(i) A hydrogeologic site assessment shall be conducted in compliance with K.A.R. 28-29-104(b).

(ii) A groundwater monitoring well system shall be in place, pursuant to K.A.R. 28-29-111.

(iii) The owner or operator shall operate the landfill in a manner that minimizes leachate generation.

(iv) If groundwater contamination is detected, the owner or operator of the proposed vertical expansion shall initiate an assessment of corrective measures, pursuant to K.A.R. 28-29-114(a)(1).

(v) The final cover design shall meet the requirements of K.A.R. 28-29-121(e)(1).

(vi) Local planning and zoning approval shall be obtained from the appropriate jurisdictional body.

(vii) The owner or operator shall secure certification from the board of county commissioners that the vertical expansion is in conformance with the official county or regional solid waste management plan.

(C) A vertical expansion over a closed unit which has received final cover shall be classified as a new unit, and therefore subject to the design standards for new units.

(D) In evaluating a proposed vertical expansion, the department shall consider the following factors:

(i) The impact of the proposed vertical expansion on human health and the environment rather than other alternatives, including a new unit;

(ii) the capacity needs of the community or communities and the region using the landfill;

(iii) the proposed operating life of the vertical expansion; and

(iv) the inclusion or exclusion of the landfill in a regional solid waste management plan.

(E) The expiration date for a permit modified to allow for a vertical expansion shall not exceed five years from the date the modified permit is issued. At the end of the initial five year period, and any subsequent five year period, the owner may submit a request for an additional five-year permit. The request shall include an assessment of the environmental impact of the vertical expansion.

Based on an evaluation of the environmental impact, the permit shall either be denied, or renewed for a period not to exceed five additional years by the director.

(3) New units.

(A) All new units shall be equipped with a leachate drainage and collection system and liner designed as an integrated system in compliance with the requirements of this section.

(B) The design period for new municipal landfills shall be the estimated operating life plus 30 years of post-closure care.

(b) Hydrogeologic site investigations.

(1) The owner or operator of a proposed MSWLF unit shall conduct a hydrogeologic investigation to develop information for the following purposes:

(A) providing information to determine an appropriate design for the unit; and

(B) providing information to establish a groundwater monitoring system.

(2) Prior to submitting an application to the department for a permit to develop and operate a MSWLF or to design a groundwater monitoring system, the hydrogeologic site investigation shall be conducted in a minimum of two phases, unless the department approves conducting the two phases concurrently.

(A) The purpose of the phased study shall be to allow for the consideration by the department of information gathered during phase I prior to proceeding with phase II.

(B) If the owner or operator of an existing MSWLF has already compiled sufficient data to fulfill the requirements of the hydrogeologic investigation, this information may be submitted to the department in lieu of conducting a new assessment.

(3) For the purposes of the hydrogeologic investigation set forth in paragraph (b)(1), the area to be investigated shall consist of the entire area occupied by the facility and any adjacent areas, if necessary to fully characterize the site.

(4) All borings shall be sampled continuously except where continuous sampling is impossible or where interval sampling or sampling at recognizable points of geologic variation will provide satisfactory information. Sampling intervals shall not exceed 1.52 vertical meters (5 feet).

(5) The phase I hydrogeologic investigation shall consist of the following items.

(A) A minimum of one continuously sampled boring shall be drilled on the site, as close as pos-

sible to the geographic center, to determine if available regional hydrogeologic setting information is accurate and to characterize the site-specific hydrogeology to the extent specified by this phase of the investigation. The boring shall extend to the bottom of the uppermost aquifer. This boring shall be constructed so that it will not provide a conduit for contaminant migration to a lower aquifer or formation.

(B) The following information shall be gathered by the owner or operator:

- (i) climatic aspects of the study area;
- (ii) the regional and study area geologic and hydrogeologic setting, including a description of the geomorphology and stratigraphy of the area and aquifer characteristics, including water table depths; and
- (iii) any other information needed for the purpose of designing a phase II hydrogeologic investigation.

(C) The information from the phase I investigation shall be compiled in a report and submitted with evaluations and recommendations to the department for review and approval.

(D) The results and conclusions of the phase I report shall be certified by a qualified groundwater scientist.

(6) The phase II hydrogeologic investigation shall consist of the following items.

(A) One boring shall be located as close as possible to the topographical high point, and another shall be located as close as possible to the topographical low point of the study area.

(B) Additional borings shall be made in order to characterize the subsurface geology of the entire study area.

(C) Piezometers and groundwater monitoring wells shall be established to determine the direction and flow characteristics of the groundwater in all strata and extending down to the bottom of the uppermost aquifer. Groundwater samples taken from the monitoring wells shall be used to develop preliminary information needed for establishing background concentrations.

(D) The owner or operator shall gather the following site-specific information, as necessary, to augment the data collected during the phase I investigation:

- (i) chemical and physical properties including, but not limited to, lithology, mineralogy, and hydraulic characteristics of underlying strata including those below the uppermost aquifer;
- (ii) soil characteristics, including soil types, dis-

tribution, geochemical and geophysical characteristics;

(iii) hydraulic conductivities of the uppermost aquifer and all strata above it;

(iv) vertical extent of the uppermost aquifer;

(v) direction and rate of groundwater flow; and

(vi) concentrations of chemical constituents present in the groundwater below the unit, down to the bottom of the uppermost aquifer, using a broad range of chemical analysis and detection procedures such as gas chromatographic and mass spectrometric scanning.

(E) The owner or operator shall evaluate the data gathered during the phase I and phase II investigations and prepare a report for submittal to the department that contains the following information:

(i) structural characteristics and distribution of underlying strata, including bedrock;

(ii) characterization of potential pathways for contaminant migration;

(iii) correlation of stratigraphic units between borings;

(iv) continuity of petrographic features including, but not limited to, sorting, grain size distribution, cementation and hydraulic conductivity;

(v) identification of the confining layer, if present;

(vi) characterization of the seasonal and temporal, naturally and artificially induced, variations in groundwater quality and groundwater flow;

(vii) identification of unusual or unpredicted geologic features, including fault zones, fracture traces, facies changes, solution channels, buried stream deposits, cross cutting structures and other geologic features that may affect the ability of the owner or operator to monitor the groundwater or predict the impact of the disposal facility on groundwater; and

(viii) recommendations for landfill siting and conceptual design for the department to review and approve.

(F) The results and conclusions of the phase II report shall be certified by a qualified groundwater scientist.

(c) Foundation and mass stability analysis.

(1) The material beneath the unit shall have sufficient strength to support the weight of the unit during all phases of construction and operation. The loads and loading rate shall not cause or contribute to the failure of the liner or leachate collection system.

(2) The total settlement or swell of the foun-

dation shall not cause or contribute to the failure of the liner or leachate collection system.

(3) The solid waste disposal unit shall be designed to achieve a safety factor during the design period against bearing capacity failure of at least 2.0 under static conditions and 1.5 under seismic loadings.

(4) The waste disposal unit shall be designed to achieve a factor of safety against slope failure during the design period of at least 1.5 for static conditions and 1.3 under seismic conditions.

(5) The liner and leachate collection system shall be stable during all phases of construction and operation. The side slopes shall achieve a minimum static safety factor of 1.5 and a minimum seismic safety factor of 1.3 at all times.

(6) In calculating factors of safety, both long term, in tens or hundreds of years, and short term, over the design period of the facility, conditions expected at the facility shall be considered.

(7) The potential for earthquake or blast-induced liquefaction, and its effect on the stability and integrity of the unit shall be considered and taken into account in the design. The potential for landslides or earthquake-induced liquefaction outside the unit shall be considered if such events could affect the unit.

(d) Foundation construction.

(1) If the *in situ* material provides insufficient strength to meet the requirements of subsection (c), then the insufficient material shall be removed and replaced with clean materials sufficient to meet the requirements of subsection (c).

(2) All trees, stumps, roots, boulders and debris shall be removed.

(3) All material shall be compacted to achieve the strength and density properties necessary to demonstrate compliance with this part.

(4) Placement of frozen soil or soil onto frozen ground shall be prohibited.

(5) The foundation shall be constructed and graded to provide a smooth, workable surface on which to construct the liner.

(e) Liner standards.

(1) New MSWLF units shall be constructed:

(A) with a composite liner and a leachate collection system that is designed and constructed in accordance with subsections (g), (h), and (i). For purposes of this regulation, "composite liner" means a system consisting of two components. The upper component shall consist of a minimum 30-mil geomembrane, the lower component shall consist of at least a two-foot layer of compacted

soil with a hydraulic conductivity of no more than 1×10^{-7} cm/sec. Geomembrane components consisting of high density polyethylene (HDPE) shall be at least 60-mil thick. The geomembrane component shall be installed in direct and uniform contact with the compacted soil component in order to minimize the migration of leachate through the geomembrane should a break occur; or

(B) in accordance with an alternative design approved by the department. The design shall demonstrate that the concentration values listed in table 1 below will not be exceeded in the uppermost aquifer at the point of compliance. The point of compliance shall be within 150 meters (492) feet of the edge of the planned unit boundary. In addition, the point of compliance shall be on the owner's or operator's property and shall be at least 15.24 meters (50 feet) from the property boundary.

(2) When approving a design that complies with paragraph (1)(B), the department shall consider at least the following factors:

(A) the hydrogeologic characteristics of the facility and surrounding land;

(B) the climatic factors of the area; and

(C) the volume and physical and chemical characteristics of the leachate. The design's performance shall be evaluated at maximum annual leachate flow conditions.

(3) Approval of alternate designs shall be considered by the department only when:

(A) the technology or material has been successfully utilized in at least one application similar to the proposed application; and

(B) methods for ensuring quality control during the manufacture and construction of the liner can be implemented.

(4) The owner or operator shall document in the operating record that the liner meets the liner standards in K.A.R. 28-29-104(e)(1)(A) or (B).

TABLE 1—MAXIMUM CONTAMINANT LEVELS

Chemical	MCL (mg/l)
Arsenic	0.05
Barium	1.0
Benzene	0.005
Cadmium	0.005
Carbon tetrachloride	0.005
Chromium (hexavalent)	0.1
2,4-Dichlorophenoxy acetic acid	0.1
1,4-Dichlorobenzene	0.075
1,2-Dichlorobenzene	0.6
1,2-Dichloroethane	0.005
1,1-Dichloroethylene	0.007

Chemical	MCL (mg/l)
cis-1,2-Dichloroethylene	0.07
trans-1,2-Dichloroethylene	0.1
1,2 Dichloropropane	0.005
Endrin	0.0002
Ethylbenzene	0.7
Fluoride	4
Lindane	0.004
Lead	0.05
Mercury	0.002
Methoxychlor	0.1
Monochlorobenzene	0.1
Nitrate	10
Nitrite	1.0
Total Nitrate/Nitrite	10
Selenium	0.05
Silver	0.05
Styrene	0.1
Tetrachloroethylene	0.005
Toluene	1
Toxaphene	0.005
1,1,1-Trichloromethane	0.2
Trichloroethylene	0.005
2,4,5-Trichlorophenoxy acetic acid	0.01
Vinyl Chloride	0.002
Xylenes	10

(f) Liner construction.

(1) The construction and compaction of the liner shall be carried out in accordance with the approved design to reduce void spaces and allow the liner to support the loadings imposed by the waste disposal operation without settling that causes or contributes to the failure of the leachate collection system.

(2) The liner shall be constructed from materials whose properties are not affected by contact with the constituents expected to be in leachate generated by the landfill.

(3) Geomembrane liners shall be constructed in compliance with the following requirements.

(A) The geomembrane shall be supported by a compacted base free from sharp objects. The geomembrane shall be chemically compatible with the supporting soil materials.

(B) The geomembrane shall have sufficient strength and durability to function at the site for the design period under the maximum expected loadings imposed by the waste and equipment and stresses imposed by settlement, temperature, construction and operation.

(C) Seams shall be made in the field according to the manufacturer's specifications. All sections shall be arranged so that the use of field seams is minimized and seams are oriented in the direction subject to the least amount of stress where practical.

(D) The leachate collection system shall be designed to avoid loss of leachate through openings through the geomembrane.

(g) Leachate drainage system.

(1) The leachate drainage system shall be designed and constructed to operate for the entire design period.

(2) The system shall be designed in conjunction with the leachate collection system required by subsection (h):

(A) to maintain a maximum head of leachate 0.30 meter (one foot) above the liner; and

(B) to operate during the month when the highest average monthly precipitation occurs, and if the liner bottom is located within the saturated zone, under the condition that the groundwater table is at its seasonal high level.

(3) A drainage layer shall overlay the entire liner system. This drainage layer shall be no less than 0.30 meter (one foot) thick.

(4) The drainage layer shall be designed to maintain flow throughout the drainage layer under the conditions described in paragraph (g)(2) above.

(5) Materials used in the leachate drainage system shall be chemically resistant to the wastes and the leachate expected to be produced.

(h) Leachate collection system.

(1) The leachate collection system shall be designed and constructed to function for the entire design period. The leachate collection system shall consist of conduits including pipes, trenches, or a combination of pipes and trenches.

(2) Materials used in the leachate collection system shall be chemically resistant to the leachate expected to be produced.

(3) The leachate collection system shall be designed so that leachate drains freely from the collection conduits. If sumps are used, leachate shall be removed via gravity flow, whenever possible, before the level of leachate in the sumps rises above the invert of the collection conduits under the conditions established in paragraph (g)(2) above. If gravity flow is not possible, pumping may be utilized to remove leachate, but the use of pumps shall be minimized.

(4) Collection conduits shall be designed to capture leachate for open channel flow to convey leachate under the conditions established in paragraph (g)(2) above.

(5) Collection pipe conduits.

(A) Collection pipe shall be of a cross-sectional

area that allows cleaning and at least 0.10 meter (four inches) nominal inside diameter.

(B) The collection pipe material and bedding materials as placed shall possess structural strength to support the maximum loads imposed by the overlying materials and equipment used at the facility, as well as the effects of differential settling.

(C) Collection pipes shall be constructed within a coarse gravel envelope using a graded filter or geotextile as necessary to minimize clogging.

(D) The collection pipe system shall be equipped with a sufficient number of manholes and cleanout risers to allow cleaning and maintenance of all pipes throughout the design period.

(6) Trench conduits.

(A) Trench conduits shall be designed to minimize particulate and biological clogging.

(B) Trench conduits shall be constructed to minimize movement of drainage media when a load is placed on the media.

(i) Leachate treatment and disposal system.

(1) The owner or operator shall be responsible for the operation of a leachate management system designed to handle all leachate as it is removed from the collection system. The leachate management system shall consist of any combination of storage, treatment, pretreatment, and disposal options.

(2) The leachate management system shall allow for the management and disposal of leachate during routine maintenance and repairs.

(3) Standards for leachate storage systems.

(A) The leachate storage facility shall be capable of storing a minimum of five days' worth of accumulated leachate at the maximum generation rate used in designing the leachate drainage system in accordance with subsection (g) of this regulation.

(B) Each leachate storage facility shall be equipped with secondary containment systems equivalent to the protection provided by a clay liner 0.61 meter (two feet) thick, having a permeability no greater than 1×10^{-7} centimeters per second.

(C) Each leachate storage system shall be fabricated from material compatible with the leachate expected to be generated and resistant to temperature extremes.

(D) The leachate storage system shall be designed to minimize odors.

(E) The leachate drainage and collection sys-

tem shall not be used for the purpose of storing leachate.

(4) Standards for discharge to an off-site treatment works.

(A) Each owner or operator that discharges leachate to off-site facilities shall ensure that the receiving facility has all applicable permits or approvals in accordance with state and local water regulations.

(B) The owner or operator of a MSWLF may be required to obtain a permit or prior approval for conveyance to an off-site treatment facility.

(C) Pumps, meters, valves and monitoring stations that control and monitor the flow of leachate from the unit and which are under the control of the owner or operator shall be considered part of the facility and shall be accessible to the owner or operator at all times.

(5) Standards for leachate recycling systems.

(A) A leachate recycling system shall be utilized only at permitted waste disposal units that meet the following requirements.

(i) The unit shall have a liner designed, constructed and maintained to meet the minimum standards of paragraph (e)(1)(A) or (B) of this regulation.

(ii) The unit shall have a leachate collection system in place and operating in accordance with subsection (h) of this regulation.

(iii) The topography shall be such that any accidental leachate run-off can be controlled by ditches, berms or other equivalent control means.

(B) Leachate shall not be recycled during precipitation events or in volumes large enough to cause run-off or surface seeps.

(C) The amount of leachate added to the unit shall not exceed the ability of the waste and cover soils to transmit leachate flow downward. All other leachate shall be considered excess leachate, and a leachate management system capable of disposing of all excess leachate shall be available.

(D) The leachate storage and distribution system shall be designed to avoid exposure of leachate to air unless aeration or functionally equivalent devices are utilized.

(E) The distribution system shall be designed to allow leachate to be evenly distributed beneath the surface over the recycle area.

(6) Leachate monitoring.

(A) Representative samples of leachate shall be collected annually from each unit and tested in accordance with paragraph (i)(6)(B) of this regu-

lation at a frequency of once per year while the leachate management system is in operation.

(B) Discharges of leachate from MSWLFs shall be tested for the following constituents prior to treatment or pretreatment:

- (i) five-day biochemical oxygen demand (BOD₅);
- (ii) total suspended solids;
- (iii) total iron;
- (iv) pH;
- (v) each of the appendix I parameters listed in K.A.R. 28-29-113; and
- (vi) any other constituents as specified by the director.

(C) If it can be shown that the removed constituents are not reasonably expected to be contained in or derived from the waste contained in the unit, the list of constituents in (i)(6)(B) of this regulation may be modified by the director.

(D) An appropriate alternative frequency for repeated sampling and analysis for the constituents listed in paragraph (i)(6)(B) of this regulation, or the alternative list approved in accordance with paragraph (i)(6)(C) of this regulation, may be specified by the director during the active life, including closure, and the post-closure care period. The alternative frequency shall be based on consideration of the following factors:

- (i) leachate quantity; and
- (ii) long-term trends in leachate quality.

(7) The owner or operator shall collect and dispose of leachate for a minimum of five years after closure and thereafter until it is determined by the director that treatment is no longer necessary. (Authorized by K.S.A. 1993 Supp. 65-3406; implementing K.S.A. 65-3401; effective Oct. 24, 1994.)

28-29-108. Operating standards. (a) Excluding the receipt of hazardous waste. Owners or operators of all MSWLF units shall implement a program at the facility for detecting and preventing the disposal of regulated hazardous wastes as defined pursuant to K.A.R. 28-31-3 and K.A.R. 28-31-4, and polychlorinated biphenyls (PCB) wastes as defined in 40 CFR part 761, as in effect on July 1, 1996. This program shall include the following, at a minimum:

(1) random inspections of incoming loads, unless the owner or operator takes other steps to ensure that incoming loads do not contain regulated hazardous wastes or PCB wastes;

(2) records of any inspections;

(3) training of facility personnel to recognize regulated hazardous waste and PCB wastes; and

(4) notification of the department if a regulated hazardous waste or PCB waste is discovered at the facility.

(b) Daily cover.

(1) A uniform layer of at least 0.15 meter (six inches) of soil material shall be placed on all exposed waste at the end of each day of operation.

(2) Alternative materials or procedures, including the removal of daily cover before additional waste placement, may be used, if the alternative materials or procedures achieve performance equivalent to the requirements of paragraph (b)(1) in the following areas:

(A) prevention of blowing debris;

(B) minimization of access to the waste by vectors;

(C) minimization of the threat of fires at the open face;

(D) minimization of odors; and

(E) shedding precipitation.

(3) Each owner or operator wishing to use alternative materials for daily cover shall obtain approval from the department before application.

(c) Intermediate cover.

(1) All waste that is not to be covered within 60 days of placement by another lift of waste or final cover in accordance with K.A.R. 28-29-121 shall have a cover consisting of 0.30 meter (one foot) of compacted soil material. In addition, any MSWLF unit that will not receive any waste for an entire growing season shall be seeded.

(2) All areas with intermediate cover shall be graded so as to facilitate drainage of runoff and minimize infiltration and standing water.

(3) The grade and thickness of intermediate cover shall be maintained until the placement of additional wastes or the final cover. All cracks, rills, gullies, and depressions shall be repaired to prevent access to the solid waste by vectors, to minimize infiltration and to prevent standing water.

(d) Disease vector control.

(1) Each owner or operator of a MSWLF unit shall prevent or control on-site populations of disease vectors using techniques appropriate for the protection of human health and the environment.

(2) For purposes of this subsection, "disease vectors" means any rodents, flies, mosquitoes, or other animals, including insects, capable of transmitting disease.

(e) MSWLF gas monitoring.

(1) Each owner or operator of a MSWLF unit that receives putrescible waste or industrial wastes that have the potential to generate explosive gases shall establish and conduct an explosive gases monitoring program to ensure that dangerous levels of explosive gases do not occur within facility structures or at the surface or subsurface facility boundary.

(2) The monitoring program shall ensure that these conditions are met:

(A) the concentration of methane gas generated by the facility does not exceed 25% of the lower explosive limit for methane in facility structures, excluding gas control or recovery system components;

(B) the concentration of methane gas does not exceed the lower explosive limit for methane at the facility property boundary; and

(C) potential gas migration pathways are identified.

(3) The minimum monitoring frequency for explosive gases shall be quarterly and shall be based on the following factors:

(A) soil conditions;

(B) the hydrogeologic conditions surrounding the facility;

(C) the hydraulic conditions surrounding the facility; and

(D) the location of facility structures and property boundaries.

(4) If methane gas levels exceeding the limits specified in paragraph (e)(2) are detected, the owner or operator shall perform all of the following:

(A) immediately assess the potential danger posed to human health and the environment and take all necessary steps to ensure protection of human health;

(B) within seven days of detecting a gas level exceeding the limit, notify the department and place in the operating record the methane gas levels detected and a description of the steps taken to protect human health;

(C) within 60 days of detecting a gas level exceeding the limit, develop and submit to the department a remediation plan, which provides for the installation of an active or passive gas management system; and

(D) upon approval of the department, implement the remediation plan.

(f) MSWLF gas management standards.

(1) Standards for gas venting systems.

(A) All materials used in gas venting systems

shall be resistant to chemical reaction with the constituents of the gas.

(B) The gas venting system shall be capable of venting all gas down to the water table or bottom of the liner, whichever is higher.

(C) Gas venting systems shall be installed only outside the perimeter of the unit, unless it can be shown that gas venting inside the perimeter of the unit will not interfere with the liner, leachate collection system, cover, or monitoring equipment.

(2) Standards for gas collection systems.

(A) Gas collection systems may be installed either within the perimeter of the unit or outside the unit.

(B) The owner or operator shall design and operate gas collection systems so that the standards of paragraph (e)(2) are met.

(C) Gas collection systems shall transport gas to a central point or points for processing for beneficial uses or disposal, in accordance with the requirements of subsection (g) of this regulation.

(D) Gas collection systems shall be designed to function for the entire design period. The design may include changes in the system to accommodate changing gas flow rates or compositions.

(E) All materials and equipment used in the construction of gas collection systems shall be rated by the manufacturer as safe for use in hazardous or explosive environments and shall be resistant to corrosion by constituents of the MSWLF gas.

(F) Gas collection systems shall be designed and constructed to withstand all MSWLF operating conditions, including settlement.

(G) Gas collection systems and all associated equipment including compressors, flares, monitoring installations, and manholes shall be considered part of the facility.

(H) Provisions shall be made for collecting and draining gas condensate to the leachate management system or another management system approved by the department.

(I) A gas collection system shall not compromise the integrity of the liner or of the leachate collection or cover systems.

(J) The portion of each gas collection system used to convey the gas collected from one or more units for processing and disposal shall be tested to be airtight to prevent the leaking of gas from, or entry of air into, the collection system.

(K) The gas collection system shall be operated until the waste has stabilized enough to no longer produce methane in quantities that exceed the

minimum allowable concentrations set out in paragraph (e)(2) of this regulation.

(L) Each gas collection system shall be equipped with a mechanical device, capable of withdrawing gas, or shall be designed so that a mechanical device can be easily installed at a later time, if necessary, to meet the allowable concentrations set out in paragraph (e)(2).

(g) MSWLF gas processing and disposal system.

(1) Each MSWLF with a permanent gas collection system shall evaluate the feasibility of processing of MSWLF gas for use.

(2) The following MSWLF gas processing devices and disposal systems shall remain under the control of the owner or operator and shall be considered part of the facility:

- (A) compressors;
- (B) blowers;
- (C) raw gas monitoring systems;
- (D) devices used to control the flow of gas from the unit;
- (E) flares;
- (F) gas treatment devices; and
- (G) air pollution control devices and monitoring equipment.

(3) All gas discharges and gas processing and disposal systems shall conform with all local, state, and federal air quality requirements.

(h) Air criteria.

(1) Open burning shall be prohibited, except in accordance with K.A.R. 28-19-47.

(2) Methane, non-methane organic compounds, and other regulated emissions shall conform with all local, state, and federal air quality requirements.

(i) Boundary control.

(1) Access to the open face area of the unit and all other areas within the boundaries of the facility shall be restricted at all times to prevent unauthorized entry.

(2) A permanent sign shall be posted at the entrance to the facility stating that disposal of hazardous waste is prohibited and that, unless the waste is a predetermined class of special waste as set forth in K.A.R. 28-29-109(d) and approved for disposal by the MSWLF, special wastes shall be accompanied by a disposal authorization issued by the department. The sign shall also include the following information:

- (A) solid waste disposal area permit number;
- (B) hours of operation;

(C) penalty for unauthorized trespassing and dumping;

(D) name and telephone number of the appropriate emergency response agencies who shall be available to deal with emergencies and other problems, if different from the owner or operator; and

(E) name, address, and telephone number of the company operating the facility.

(j) Surface water drainage.

(1) Each owner or operator of a MSWLF unit shall design, construct, and maintain the following:

(A) a run-on control system to prevent flow onto the active portion of the MSWLF during the peak discharge from a 24-hour, 25-year storm; and

(B) a runoff control system from the active portion of the MSWLF to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(2) Each surface water control structure shall be operated until the final cover is placed and erosional stability is provided by the vegetative or other cover.

(3) Diversion of runoff from undisturbed areas.

(A) Runoff from undisturbed areas shall be diverted around disturbed areas, unless the owner or operator shows that it is impractical based on site-specific conditions.

(B) Diversion facilities shall be designed to prevent runoff from the 25-year, 24-hour precipitation event from entering disturbed areas.

(C) Runoff from undisturbed areas that becomes commingled with runoff from disturbed areas shall be handled as runoff from disturbed areas and managed in accordance with paragraph (j)(1)(B) above.

(4) The facility shall not cause the discharge of a nonpoint source of pollution to waters of the United States, including wetlands, that violates any requirement of an area-wide or statewide water quality management plan that has been approved under 33 U.S.C. sections 1288 or 1329.

(5) The facility shall not cause a discharge of pollutants into waters of the United States, including wetlands, that violates any requirements of 33 U.S.C. 1251, et seq., 1994 edition.

(k) Liquids restrictions.

(1) Bulk or noncontainerized liquid waste shall not be placed in MSWLF units unless either of these conditions is met:

(A) the waste is residential waste other than septic waste; or

(B) the waste is leachate or gas condensate derived from the MSWLF unit, and the MSWLF unit, whether it is a new or existing unit, is designed with a liner and leachate collection system as described in K.A.R. 28-29-103(e), or K.A.R. 28-29-104(e)(1)(A) or (B).

(2) Containers holding liquid waste shall not be placed in a MSWLF unit unless any of these conditions is met:

(A) the container is a small container similar in size to that normally found in residential waste;

(B) the container is designed to hold liquids for use other than storage; or

(C) the waste is residential waste.

(3) For purposes of this subsection, these provisions shall apply:

(A) "liquid waste" means any waste material that is determined to contain "free liquids" as defined by method 9095A, revision 1, paint filter liquids test, as described in "test methods for evaluating solid waste, physical/chemical methods," EPA Pub. No. SW-846, dated December, 1996; and

(B) "gas condensate" means the liquid generated as a result of gas collection and recovery process or processes at the MSWLF unit.

(l) Survey controls.

(1) The boundaries of all waste disposal units, property boundaries, disturbed areas, and the permit area for facilities subject to this part shall be surveyed and marked by a professional land surveyor. All stakes shall be clearly marked, inspected annually, and replaced if missing or damaged.

(2) Control monuments shall be established to check vertical elevations. The control monuments shall be established and maintained by a professional land surveyor.

(m) Compaction.

(1) All wastes shall be deposited in the smallest practical area and shall occur at the lowest part of the active face. Wastes may be deposited at locations other than the lowest part of the active face, if site conditions do not allow deposition of wastes at the lowest part of the active face, or if locations other than the lowest part of the active face are in the approved facility operational plan.

(2) All wastes shall be compacted to the highest achievable density necessary to minimize void space and settlement, unless precluded by extreme weather conditions.

(n) Phasing of operations.

(1) Waste shall be placed in a manner and at such a rate that mass stability is provided during all phases of operation. Mass stability shall mean that the mass of the waste deposited will not undergo settling or slope failure that interrupts operations at the facility or causes damage to any of the various MSWLF operations or structures, including the liner, leachate or drainage collection system, gas collection system, or monitoring system.

(2) The phasing of operations at the facility shall be designed in such a way as to allow the sequential construction, filling, and closure of discrete units or parts of units.

(3) The owner or operator shall design and sequence the waste placement operation in each discrete unit or parts of units to allow the wastes to be built up to each unit's planned final grade as quickly as possible.

(o) Size and slope of working face.

(1) The working face of the unit shall be no larger than is necessary, based on the terrain and equipment used in waste placement, to conduct operations in a safe and efficient manner.

(2) The slopes of the working face area shall be no steeper than 2:1, horizontal:vertical, unless the waste is stable at steeper slopes.

(p) Salvaging.

(1) Salvaging operations shall not cause any of the following:

(A) interfere with the operation of the waste disposal facility;

(B) result in a violation of any standard in this regulation; or

(C) delay the construction or interfere in the operation of any of the following:

(i) the liner;

(ii) leachate collection system;

(iii) daily, intermediate, or final cover; or

(iv) any monitoring devices.

(2) All salvaging operations shall be confined to an area remote from the working face of the MSWLF and be performed in a safe and sanitary manner in compliance with the requirements of this subsection.

(3) Salvageable materials may be accumulated on-site by a MSWLF owner or operator, if they are managed in a manner that will not create a nuisance, harbor vectors, cause offensive odors, or create an unsightly appearance.

(4) Scavenging at MSWLFs shall be prohibited.

(q) Recordkeeping.

(1) The owner or operator of a MSWLF unit shall record and retain on-site for a period of five years, in an operating record, the following information as it becomes available:

(A) location restriction demonstrations required under K.A.R. 28-29-102 of this part;

(B) inspection records, training procedures, and notification procedures required under K.A.R. 28-29-108(a);

(C) gas monitoring results from monitoring and any remediation plans required by K.A.R. 28-29-108(e);

(D) MSWLF unit design documentation for placement of leachate or gas condensate in a MSWLF unit as required under K.A.R. 28-29-108(k);

(E) demonstrations, certifications, findings, monitoring, testing, or analytical data required by K.A.R. 28-29-111 through K.A.R. 28-29-114;

(F) closure and post-closure care plans and any monitoring, testing, or analytical data as required by K.A.R. 28-29-121 and K.A.R. 28-29-122;

(G) cost estimates and financial assurance documentation required by K.S.A. 1996 Supp. 65-3407(h), as amended by L. 1997, Ch. 140, Sec. 4;

(H) demonstrations for the small landfill exemption as required by K.A.R. 28-29-103;

(I) demonstrations that the liner meets the liner standards as required in K.A.R. 28-29-104 (e)(1)(A) or (B); and

(J) a copy of the current facility permit, including all approved plans and specifications.

(2) All information contained in the operating record shall be furnished upon request to the department or made available at any reasonable times for inspection by the department.

(r) Other operating standards.

(1) In order to achieve and maintain compliance with the requirements of these regulations, adequate equipment shall be available for use at the facility during all hours of operation.

(2) All utilities, including heat, lights, power and communications equipment, and sanitary facilities, necessary for operation in compliance with the requirements of this regulation shall be available at the facility at all times.

(3) The owner or operator shall maintain and operate all systems and related appurtenances and structures in a manner that facilitates proper operations in compliance with this regulation.

(4) The owner or operator shall implement methods for controlling dust to minimize wind dispersal of particulate matter.

(5) The facility shall be designed, constructed, and maintained to minimize the level of equipment noise audible outside the facility.

(6) The owner or operator shall make arrangements for fire protection services when a fire protection district or other public fire protection service is available. When such a service is not available, the owner or operator shall institute alternate fire protection measures.

(7) The owner or operator shall patrol the facility to check for litter accumulation and take all necessary steps to minimize blowing litter, including the use of screens. All litter shall be collected and placed in the fill or in a secure, covered container for later disposal.

(8) The owner or operator shall implement a plan for litter control for all vehicles on the permitted facility site.

(9) An operational safety program shall be provided for employees at each MSWLF facility.

(10) MSWLF access roads shall be of all-weather construction and shall be negotiable at all times by trucks and other vehicles.

(11) Access to MSWLFs shall be limited to hours when an attendant or operating personnel are at the site.

(12) The owner or operator of each MSWLF shall maintain a log of commercial or industrial solid wastes received, including sludges, barreled wastes, and special wastes.

(A) The log shall indicate the source and quantity of waste and the disposal location.

(B) The areas used for disposal of these wastes and other large quantities of bulk wastes shall be clearly shown on a site map and referenced to the boundaries of the tract or other permanent markings.

(13) Sludges, industrial solid wastes, or special wastes shall not be disposed in a MSWLF until the department has been notified and has issued a disposal authorization including specific arrangements for handling of the wastes.

(s) Operating flexibility.

(1) The operator of any unit that has been granted a small landfill exemption under K.A.R. 28-29-103 may request from the director approval for alternatives to the following operating requirements:

(A) daily cover;

(B) MSWLF gas monitoring; and

(C) record keeping.

(2) Each alternate requirement approved by

the director shall meet the following requirements:

(A) consider the unique characteristics of small communities;

(B) take into account climatic and hydrogeologic conditions; and

(C) be protective of human health and the environment. (Authorized by K.S.A. 1996 Supp. 65-3406, as amended by L. 1997, Ch. 139, Sec. 1; implementing K.S.A. 65-3401, as amended by L. 1997, Ch. 140, Sec. 1; effective Oct. 24, 1994; amended July 10, 1998.)

28-29-109. Special waste. (a) Disposal of special waste. Any person may dispose of special waste, as defined in K.A.R. 28-29-3, if both of the following conditions are met.

(1) The person disposes of the special waste at a permitted municipal solid waste landfill (MSWLF).

(2) The special waste has been issued a special waste disposal authorization in accordance with subsections (b) and (c) of this regulation and is disposed of in accordance with subsection (g) of this regulation.

(b) Request for special waste disposal authorization. Each person requesting a special waste disposal authorization shall provide the following information to the department:

(1) A description of the waste, including the following information:

(A) The type of waste;

(B) the process that produced the waste;

(C) the physical characteristics of the waste; and

(D) the quantity of waste to be disposed of;

(2) the following information concerning the generator:

(A) Name;

(B) address;

(C) telephone number; and

(D) contact person;

(3) the location of waste generation, if different from the generator address;

(4) the name and address of each solid waste transfer station proposed for transfer of the waste;

(5) the name and address of the MSWLF proposed for disposal of the waste;

(6) a statement, signed by the generator of the waste or an agent of the generator, that the waste is not a listed hazardous waste and is not a waste that exhibits the characteristics of a hazardous waste specified in K.A.R. 28-31-3, based on

knowledge of the process generating the waste, laboratory analyses, or both; and

(7) each laboratory analysis that has been performed to determine if the waste is a listed hazardous waste or is a waste that exhibits the characteristics of a hazardous waste. The person requesting a special waste disposal authorization shall ensure that the following requirements are met:

(A) Each analysis shall be performed and reported by a laboratory that has departmental certification, if this certification is available, for that analysis.

(B) Each analytical laboratory report shall include the following:

(i) Each analysis required to make a determination of hazardous waste characteristics as specified in K.A.R. 28-31-3;

(ii) all additional analyses specified by the department;

(iii) quality control data; and

(iv) a copy of the chain of custody.

(C) The generator shall provide a signed statement for each analytical laboratory report stating that the analytical results are representative of the waste.

(D) If the waste is an unused or spilled product and the waste has not been combined with any substance other than an absorbent, the generator may submit a material safety data sheet for the waste in lieu of laboratory analyses.

(c) Issuance of special waste disposal authorizations.

(1) No later than 10 working days after the department receives a request for a special waste disposal authorization, the person making the request shall be notified by the department of one of the following determinations:

(A) The request for a special waste disposal authorization is not complete.

(B) The waste does not require a special waste disposal authorization.

(C) The waste is a special waste, and the request for a special waste disposal authorization is approved.

(D) The waste is a special waste, and the request for a special waste disposal authorization is denied. The denial notification shall include the reason for denial.

(2) If a special waste is authorized for disposal, a written special waste disposal authorization stating the terms for transportation and disposal of

the special waste shall be provided by the department to all of the following persons:

(A) The person requesting the special waste disposal authorization, the generator of the waste, or both;

(B) the owner or operator of each solid waste transfer station proposed for transfer of the solid waste; and

(C) the owner or operator of the MSWLF proposed for disposal of the special waste.

(3) A special waste disposal authorization shall not obligate any MSWLF or solid waste transfer station owner or operator to accept the special waste.

(d) Petroleum-contaminated soil. Sampling and analysis requirements and procedures for soil and debris contaminated with petroleum products shall include the following:

(1) A least one representative sample shall be collected for analysis from the first 300 cubic yards of soil and debris. If the analytical data from the first sample shows that the waste is not hazardous, one representative sample shall be collected for analysis from each 500 cubic yards of soil and debris after that first sample.

(2) Additional samples may be required by the secretary.

(3) The owner or operator may deviate from the required frequency of sampling schedule with written approval from the secretary. The owner or operator shall submit a written sampling plan and explanation for the deviation from the required sampling schedule to the secretary for review and approval.

(4) To qualify for landfill disposal, the concentration of benzene and 1,2-dichloroethane in the soil and debris shall be less than one of the following:

(A) 10 mg/kg using a total analysis; or

(B) 0.5 mg/l using the toxicity characteristic leaching procedure analysis.

(5) A lead analysis may be required by the department. To qualify for landfill disposal, the concentration of lead in the soil shall be less than one of the following:

(A) 100 mg/kg using a total analysis; or

(B) 5 mg/l using the toxic characteristic leaching procedure analysis.

(e) Generator requirements for transfer of special wastes. Each generator of special waste or the agent of the generator shall, before transfer of the special waste, provide the transporter with a copy

of the disposal authorization for each load of special waste.

(f) Transporter requirements for transfer and disposal of special wastes. Before transfer or disposal of special waste, each transporter of special waste shall provide notification of each load of special waste to both of the following persons:

(1) The owner or operator of each solid waste transfer station involved in the transport of the special waste; and

(2) the owner or operator of the MSWLF at which the special waste will be disposed.

(g) MSWLF requirements for acceptance and disposal of special wastes. The owner or operator of each MSWLF shall comply with each of the following requirements:

(1) If a load of special waste requires a special waste disposal authorization, check for compliance with the special waste disposal authorization;

(2) reject any special waste requiring a special waste disposal authorization if the special waste does not meet both of the following requirements:

(A) Has a special waste disposal authorization issued by the department; and

(B) meets the requirements of the special waste disposal authorization;

(3) notify the department in writing of each special waste load that is rejected at the MSWLF within one business day after the rejection;

(4) dispose of the special waste only if it meets one of the following requirements:

(A) Is capable of passing the paint filter liquids test specified in K.A.R. 28-29-108; or

(B) is exempt from the liquids restriction as specified in K.A.R. 28-29-108; and

(5) maintain documentation in the operating record, as specified in K.A.R. 28-29-108, of each special waste disposed of at the MSWLF, until the MSWLF is certified for closure in accordance with K.A.R. 28-29-121. (Authorized by K.S.A. 2001 Supp. 65-3406; implementing K.S.A. 2001 Supp. 65-3401; effective July 10, 1998; amended May 30, 2003.)

28-29-111. Groundwater monitoring systems; applicability and design. (a) The requirements in this regulation shall apply to all MSWLF units, except as provided in subsection (b).

(b) Groundwater monitoring requirements may be suspended by the department for a MSWLF unit if the owner or operator demonstrates that there is no potential for migration of

hazardous constituents from that MSWLF unit to the uppermost aquifer during the active life of the unit and the post-closure care period. This demonstration shall be certified by a qualified groundwater scientist and approved by the department, and shall be based upon:

(1) site-specific field-collected measurements, sampling, and analysis of physical, chemical, and biological processes affecting contaminant fate and transport; and

(2) contaminant fate and transport predictions that maximize contaminant migration and consider impacts on human health and environment.

(3) For the purposes of K.A.R. 28-29-111 and K.A.R. 28-29-112, "hazardous constituent" means all constituents listed in appendix I and appendix II of K.A.R. 28-29-113.

(c) Each owner or operator of a MSWLF unit shall comply with the groundwater monitoring requirements of this part according to the following schedule.

(1) Each existing MSWLF unit or lateral expansion less than or equal to one mile from a drinking water intake, surface or subsurface shall be in compliance with applicable groundwater monitoring requirements in K.A.R. 28-29-111 through K.A.R. 28-29-114 by October 9, 1994.

(2) Each existing MSWLF unit or lateral expansion greater than one mile but less than or equal to two miles from a drinking water intake, surface or subsurface, shall be in compliance with applicable groundwater monitoring requirements in K.A.R. 28-29-111 through K.A.R. 28-29-114 by October 9, 1995.

(3) Each existing MSWLF unit or lateral expansion greater than two miles from a drinking water intake, surface or subsurface, shall be in compliance with the groundwater monitoring requirements in K.A.R. 28-29-111 through K.A.R. 28-29-114 by October 9, 1996.

(4) Each MSWLF unit which meets the requirements of K.A.R. 28-29-103(a) and is less than or equal to two miles from a drinking water intake, surface or subsurface, shall be in compliance with applicable groundwater monitoring requirements in K.A.R. 28-29-111 through K.A.R. 28-29-114 by October 9, 1995.

(5) Each MSWLF unit which meets the requirements of K.A.R. 28-29-103(a) and is greater than two miles from a drinking water intake, surface or subsurface, shall be in compliance with the groundwater monitoring requirements in

K.A.R. 28-29-111 through K.A.R. 28-29-114 by October 9, 1996.

(6) Each new MSWLF unit except those meeting the requirements of K.A.R. 28-29-103(a), shall be in compliance with the groundwater monitoring requirements specified in subsection (f) before waste may be placed in the unit.

(d) Once a MSWLF unit has been established, groundwater monitoring shall be conducted throughout the active life and post-closure care period of that MSWLF unit.

(e) For the purposes of K.A.R. 28-29-100 through K.A.R. 28-29-121, a "qualified groundwater scientist" means a scientist or engineer who has received a baccalaureate or post-graduate degree in the natural sciences or engineering and has sufficient training and experience in groundwater hydrology and related fields. Sufficient training may be demonstrated by state registration, professional certifications, or completion of accredited university programs that enable that individual to make sound professional judgements regarding groundwater monitoring, contaminant fate and transport, and corrective action.

(f) Groundwater monitoring systems.

(1) A groundwater monitoring system shall be installed that consists of a sufficient number of wells, installed at appropriate locations and depths, to yield groundwater samples from the uppermost aquifer that:

(A) represent the quality of background groundwater that has not been affected by leakage from a unit; and

(B) represent the quality of groundwater passing the point of compliance.

(2) The owner or operator shall maintain records that, at a minimum include the following:

(A) exact well three-dimensional location;

(B) well size;

(C) type of well;

(D) the design and construction practice used in well installation; and

(E) well and screen depths.

(3) The monitoring wells, piezometers, and other measurement, sampling, and analytical devices shall be operated and maintained so that they perform to design specifications throughout the life of the monitoring program. The owner or operator shall maintain wells to operate throughout the design period of the landfill.

(4) Standards for the location of monitoring points in the detection monitoring system.

(A) Each monitoring well shall be located in a

stratigraphic horizon that could serve as a contaminate migration pathways.

(B) Lateral distance from the unit.

(i) For new units, each monitoring well shall be established at a lateral distance not greater than 150 meters (492 feet) from the planned edge of the unit. Each well shall be located on the owner's or operator's property, and shall be at least 15.24 meters (50 feet) from the property boundary. The requirements of paragraph (f)(4)(B)(i) shall not apply to vertical expansions or existing units that are in operation on October 9, 1996.

(ii) For existing units, each monitoring well shall be established at a lateral distance not greater than 150 meters (492 feet) from the planned edge of the unit, and shall be located on the owner's or operator's property.

(C) The number, spacing, and depths of monitoring wells shall be:

(i) determined based upon site-specific technical information gathered from the hydrogeologic investigation conducted pursuant to K.A.R. 28-29-104(b); and

(ii) certified by a qualified groundwater scientist.

(D) The network of monitoring points of several potential sources of discharge within a single facility may be combined into a single monitoring network, provided that discharges from any part of all potential sources can be detected. The following information shall be provided by the owner or operator as requested by the department for use in evaluating an owner's or operator's proposal for a multi-unit monitoring system:

(i) number, spacing, and orientation of each MSWLF unit;

(ii) hydrogeologic setting;

(iii) site history;

(iv) engineering design of each MSWLF unit; and

(v) type of waste accepted at each MSWLF unit.

(5) Well construction standards.

(A) Each monitoring well shall be constructed in accordance with K.A.R. 28-30-6.

(B) Each monitoring well shall be cased with inert materials that will not affect the water sample. Casing requiring solvent-cement type couplings shall not be used.

(C) Each well shall be screened to allow sampling only at the desired interval. The slot size of the screen and filter pack shall be designed to minimize turbidity. Screens shall be fabricated

from material expected to be inert with respect to the constituents of the groundwater to be sampled.

(D) Each well shall be equipped with a device to protect against tampering and damage.

(E) Each well shall be developed to allow free entry of water and minimize turbidity of the sample.

(F) The transmissivity of the zone surrounding each well screen shall be established by field-testing techniques. (Authorized by K.S.A. 1993 Supp. 65-3406; implementing K.S.A. 65-3401; effective Oct. 24, 1994.)

28-29-112. Groundwater monitoring systems; sampling and data analysis requirements.

(a) The groundwater monitoring program shall include consistent sampling and analysis procedures to ensure that monitoring results provide data representative of groundwater quality in the zone being monitored.

(b) The owner or operator shall develop a sampling and analysis plan to submit to the department for approval that includes the following:

(1) a quality assurance and quality control program for field sampling procedures and laboratory analysis that provides:

(A) quantitative detection limits;

(B) the degree of error for analysis of each chemical constituent;

(C) equipment decontamination procedures; and

(D) other field quality assurance protocols;

(2) a sample preservation and shipment procedure that maintains the integrity of the sample collected for analysis;

(3) a chain of custody procedure to prevent tampering and contamination of the collected samples prior to completion of analysis;

(4) the sampling procedures and analytical methods that will be used, why they are appropriate for groundwater sampling and whether they accurately measure constituents in groundwater samples; and

(5) the statistical method or methods listed in subsection (h) of this regulation which will be used in evaluating monitoring data for each constituent detected.

(c) Groundwater samples shall not be field-filtered prior to laboratory analysis. The director may require field filtered samples in cases where turbidity affects the validity of the results.

(d) The owner or operator shall determine the

rate and direction of groundwater flow each time groundwater is sampled. Groundwater elevations in wells that monitor the same waste-management area shall be measured within a period of time short enough to avoid temporal variations in groundwater flow that could preclude accurate determination of groundwater flow rate and direction.

(e) The owner or operator shall conduct quarterly groundwater monitoring for one year to determine background concentrations for each of the monitoring parameters or constituents required in the detection groundwater monitoring program, set out in K.A.R. 28-29-113(a).

(f) Background groundwater quality may be established at wells that are not located hydraulically upgradient from the MSWLF unit if:

(1) hydrogeologic conditions do not allow the owner or operator to determine what wells are hydraulically upgradient; or

(2) sampling at other wells will provide an indication of background groundwater quality that is as representative or more representative than that provided by the upgradient wells.

(g) The number of samples collected shall be consistent with the appropriate statistical procedures determined pursuant to this regulation.

(h) The following methods shall be acceptable statistical methods to be utilized in evaluating groundwater monitoring data, and shall be applied separately to each constituent detected in each well:

(1) a parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. This method shall include an estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent;

(2) an analysis of variance (ANOVA) based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. This method shall include an estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent;

(3) a tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit;

(4) a control chart approach that gives control limits for each constituent; or

(5) another statistical test method that meets the following performance standards:

(A) The statistical method used to evaluate groundwater monitoring data shall be appropriate for the distribution of chemical parameters or hazardous constituents. If the distribution of the chemical parameters or hazardous constituents is shown by the owner or operator to be inappropriate for a normal theory test, then the data may be transformed or a distribution-free theory test may be used. If the distributions for the constituents differ, more than one statistical method may be needed.

(B) If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a groundwater protection standard, the test shall be done at a type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the type I experiment-wise error rate for each testing period shall be no less than 0.05; however, the type I error of no less than 0.01 for individual well comparisons must be maintained. This performance standard shall not apply to tolerance intervals, prediction intervals, or control charts.

(C) If a control chart approach is used to evaluate groundwater monitoring data, the specific type of control chart and its associated parameter values shall be protective of human health and the environment. The parameters shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

(D) If a tolerance interval or a prediction interval is used to evaluate groundwater monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval shall contain, shall be protective of human health and the environment. These parameters shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

(E) The statistical method shall account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment. Any practical quantitation limit (pql) that is used in the statistical method shall be the lowest concentration level

that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

(F) If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

(i) Any owner or operator wishing to use an alternative statistical test shall seek the approval of the department and provide a justification for the alternative test. The justification shall demonstrate that the alternative method meets the performance standards listed in paragraph (h)(5) above.

(j) The owner or operator shall determine whether or not there is a statistically significant increase over background values for each parameter or constituent required in the particular groundwater monitoring program that applies to the MSWLF unit.

(1) The owner or operator shall submit the statistical analyses to the department within 45 days of receipt of analytical results.

(2) If requested by the department, the results of the statistical analyses shall be provided in electronic form via computer disc or other electronic means.

(3) If requested by the department, the raw analytical data shall also be provided.

(k) In determining whether a statistically significant increase has occurred, the owner or operator shall compare the groundwater quality of each parameter or constituent at each downgradient monitoring well to the background value of that constituent, according to the statistical procedures and performance standards specified in this regulation. (Authorized by K.S.A. 1993 Supp. 65-3406; implementing K.S.A. 65-3401; effective Oct. 24, 1994.)

28-29-113. Groundwater monitoring systems; detection and assessment monitoring. (a) Detection monitoring program.

(1) Detection monitoring shall be required at each groundwater monitoring well as defined in K.A.R. 28-29-111. At a minimum, a detection monitoring program shall include the monitoring for the constituents listed in appendix I of this regulation. The owner or operator shall also conduct the following evaluations at each well at the time of sample collection and immediately before

filtering, if applicable, and preserving samples for shipment:

- (A) elevation of the water table;
- (B) depth of the bottom of the well;
- (C) pH of the sample;
- (D) temperature of the sample;
- (E) specific conductance of the sample; and
- (F) observations of the physical characteristics of the sample.

(2) The monitoring frequency for each constituent listed in appendix I shall be semiannual during the active life of the facility, including closure, and the post-closure period except that monitoring shall be quarterly for the first year. At least one sample from each well, background and downgradient, shall be collected and analyzed. An appropriate alternative frequency for sampling and analysis may be specified by the director. However, the alternative frequency shall be no less than annually.

(3) If the owner or operator determines that there is a statistically significant increase over background for one or more of the constituents listed in appendix I at any monitoring well, the owner or operator shall:

(A) notify the director within 14 calendar days of this finding. The notification shall indicate which constituents have shown statistically significant changes from background levels; and

(B) within 30 calendar days of this finding, re-sample the wells showing the statistically significant increase to confirm the finding. If the statistically significant increase is not confirmed, the owner or operator shall return to the detection monitoring program specified in paragraph (a)(1) of this regulation.

(i) If the statistically significant increase is confirmed, the owner or operator shall conduct an assessment monitoring program meeting the requirements of subsection (b) of this regulation, and develop a release assessment plan to determine the nature and extent of the release within 90 days of confirming the statistically-significant increase.

(ii) Upon approval of the release assessment plan by the director, the owner or operator shall implement the release assessment plan, and prepare and submit a report summarizing all activities and findings according to the schedule specified in the plan and approved by the department.

(iii) In lieu of paragraph (a)(3)(B)(i) and (ii) above, the owner or operator may demonstrate to the department that a source other than MSWLF

unit caused the contamination, that the statistically significant increase resulted from a natural variation in groundwater quality, or that the statistically significant increase resulted from an error in sampling. A report documenting this demonstration shall be certified by a qualified groundwater scientist and placed in the operating record. If a successful demonstration is made to and approved by the department, the owner or operator may continue detection monitoring as specified in paragraph (a)(1) of this regulation. If after 90 days a successful demonstration is not made, the owner or operator shall conduct assessment monitoring as required in subsection (b) of this regulation, and develop a release assessment plan to determine the nature and extent of the release.

(b) Assessment monitoring.

(1) Assessment monitoring shall be required for:

(A) new municipal solid waste landfills or units, or existing municipal solid waste landfills or units which have established background groundwater concentrations for the appendix I constituents, whenever a statistically significant increase over background has been detected for one or more of the constituents listed in appendix I; and

(B) existing municipal solid waste landfills or units that have not established background groundwater concentrations for the appendix I constituents if groundwater contamination exists that exceeds the maximum contamination limits (MCL's) for any organic constituent contained in appendix I.

(2) Within 90 days of triggering assessment monitoring, the owner or operator shall sample each downgradient well, or those wells specified by the director, and analyze the groundwater for:

(A) all constituents identified in appendix II; and

(B) the parameters listed in paragraph (a)(1) of this regulation.

(3) Within 180 days of the sampling event described in paragraph (b)(2), the owner or operator shall collect and analyze from each background and downgradient well a minimum of three independent samples to establish background concentrations for each appendix II constituent detected during paragraph (b)(2) analyses.

(4) (A) Within 90 days of the sampling event described in paragraph (b)(3), and on a semi-annual basis thereafter, the owner or operator shall sample each downgradient well, or those wells

specified by the director, and conduct analysis for all constituents in appendix I and for each constituent in appendix II that is detected during paragraph (b)(2) analyses.

(B) In addition, the owner or operator shall sample each downgradient well for each appendix II constituents on an annual basis.

(C) All analytical results shall be recorded in the facility operating record.

(5) Whenever a new constituent or constituents is detected in a downgradient well as a result of the sampling described in paragraphs (b)(2) or (4), above, the owner or operator shall:

(A) notify the director within 14 days of each appendix II constituent that has been detected;

(B) collect and analyze from each background and downgradient well a minimum of four independent samples to establish background concentrations for the new constituent or constituents; and

(C) include any new constituents detected in any subsequent monitoring.

(6) If it can be shown that the removed constituents are not reasonably expected to be contained in or derived from the waste contained in the unit, appendix II monitoring for a MSWLF unit may be modified by the director.

(7) An appropriate alternate frequency for repeated sampling and analysis for the full set of appendix II constituents during the active life, including closure, and post-closure care of the unit may be specified by the director.

(8) An appropriate subset of wells to be sampled and analyzed for appendix II constituents during assessment monitoring may be specified by the director.

(9) If the concentrations of all appendix II constituents are shown to be at or below background values, using the statistical procedures in K.A.R. 28-29-112, for two consecutive sampling events, the owner or operator shall notify the department of this finding and may return to detection monitoring, if approved by the department.

(10) If the concentrations of any appendix II constituents are above background values, but all concentrations are below the groundwater protection standard established under subsection (13) using the statistical procedures in section K.A.R. 28-29-112, the owner or operator shall continue assessment monitoring in accordance with this regulation. Based on an analysis of groundwater contamination trends, it may be requested by the director that the owner or operator proceed to the

assessment of corrective measures, as described in K.A.R. 28-29-114.

(11) If one or more appendix II constituents are detected at statistically-significant levels above the groundwater protection standard in any sampling event, the owner or operator shall, within 14 days of this finding, notify the department and identify each appendix II constituent that has exceeded the groundwater protection standard.

(12) If a determination is made that contamination has migrated off-site, the owner or operator shall immediately notify all appropriate local government officials and all persons who own the land or reside on the land that directly overlies any part of the plume of contamination.

(13) A groundwater protection standard for each appendix II constituent detected in the groundwater shall be established by the department. The groundwater protection standard shall be:

(A) the maximum contaminant level (MCL) where an MCL has been promulgated under section 1412 of the safe drinking water act under 40 CFR part 141, as in effect on July 1, 1992;

(B) the background concentration for the constituent established from wells in accordance with paragraph (b)(5)(B) of this regulation; or

(C) the background concentration for the constituent established from wells in accordance with paragraph (b)(5)(B) if the background level is higher than:

(i) the MCL; or

(ii) the health-based levels identified under paragraph (b)(14).

(14) An alternative groundwater protection standard for constituents for which MCLs have not been established may be approved by the department. These groundwater protection standards shall be appropriate health-based levels that satisfy the following criteria:

(A) The level is derived in a manner consistent with environmental protection agency guidelines for assessing the health risks of environmental pollutants, 51 Federal Register 33992, 34006, 34014, 34028, dated September 24, 1986;

(B) the level is based on scientifically valid studies conducted in accordance with the toxic substances control act good laboratory practice standards, 40 CFR part 792, as in effect on July 1, 1992, or equivalent;

(C) for carcinogens, the level represents a concentration associated with an excess lifetime cancer-risk level, due to continuous lifetime exposure, within the 1×10^{-4} to 1×10^{-6} range; and

(D) for systemic toxicants, the level represents a concentration to which the human population, including sensitive subgroups, could be exposed on a daily basis which is likely to be without appreciable risk of deleterious effects during a lifetime. For purposes of this paragraph, systemic toxicants include toxic chemicals that cause effects other than cancer or mutation.

(15) A standard in lieu of paragraph (b)(13) may be designated by the director while an alternative standard is being developed pursuant to paragraph (b)(14).

(c) Appendices.

APPENDIX I

GEOCHEMICALS

Alkalinity
Calcium
Chemical Oxygen Demand (COD)
Chloride
Nitrogen (Ammonia)
Potassium, dissolved
Sodium, dissolved
Sulfate
Total Dissolved Solids (TDS)

VOLATILE ORGANICS

Acetone
Benzene*
Bromodichloromethane
Bromomethane
Bromoform
2-Butanone
Carbon Disulfide
Carbon tetrachloride
Chlorobenzene
Chlorethane
2-Chloroethylvinyl ether
Chloroform
Chloromethane
Dibromochloromethane
1,1-Dichloroethane
1,2-Dichloroethane*
1,1-Dichloroethene*
trans-1,2-Dichloroethene
1,2-Dichloropropane*
cis-1,3-Dichloropropene
Trans-1,3-Dichloropropene
Ethylbenzene*
2-Hexanone
4-Methyl-2-pentanone
Methylene chloride
Styrene*

Tetrachlorethene*
 Toluene*
 Total Xylenes*
 1,1,2,2-Tetrachloroethane
 1,1,1-Trichloroethane*
 1,1,2-Trichloroethane
 Trichloroethene*
 Vinyl acetate
 Vinyl chloride*
 *MCL promulgated

APPENDIX II

GEOCHEMICALS

Alkalinity
 Calcium
 Chemical Oxygen Demand (COD)
 Chloride
 Nitrogen (Ammonia)
 Potassium, dissolved
 Sodium, dissolved
 Sulfate
 Total Dissolved Solids (TDS)

METALS

Antimony
 Arsenic
 Barium
 Beryllium
 Cadmium
 Chromium
 Cobalt
 Copper
 Lead
 Nickel
 Selenium
 Silver
 Thallium
 Vanadium
 Zinc

POLYNUCLEAR AROMATIC HYDROCARBONS

Acenaphthene
 Acenaphthylene
 Anthracene
 Benzo(a)anthracene
 Benzo(a)pyrene
 Benzo(b)fluoranthene
 Benzo(j)fluoranthene
 Benzo(k)fluoranthene
 Benzo(ghi)perylene
 Chrysene
 Dibenz(a,h)acridine

Dibenz(a,j)acridine
 Dibenzo(a,h)anthracene
 7H-Dibenzo(c,g)carbazole
 Dibenzo(a,e)pyrene
 Dibenz(a,h)pyrene
 Dibenzo(a,i)pyrene
 Fluoranthene
 Fluorene
 Indeno(1,2,3-cd)pyrene
 3-Methylcholanthrene
 Naphthalene
 Phenanthrene
 Pyrene

CHLORINATED HYDROCARBONS

Benzal chloride
 Benzotrichloride
 Benzyl chloride
 2-Chloronaphthalene
 1,2-Dichlorobenzene
 1,3-Dichlorobenzene
 1,4-Dichlorobenzene
 Hexachlorobenzene
 Hexachlorobutadiene
 Hexachlorocyclohexane
 Hexachlorocyclopentadiene
 Hexachloroethane
 Tetrachlorobenzenes
 1,2,4-Trichlorobenzene
 Pentachlorohexane

ORGANOPHOSPHORUS PESTICIDES

Azinphos methyl
 Bolstar
 Chlorpyrifos
 Coumaphos
 Demeton-O
 Demeton-S
 Diazinon
 Dichlorvos
 Disulfoton
 Ethroprop
 Fensulfothion
 Fenthion
 Merphos
 Mevinphos
 Naled
 Parthion methyl
 Phorate
 Ronnel
 Stirophos (Tetrachlorvinphos)
 Tokuthion (Prothiofos)
 Trichloronate

CHLORINATED HERBICIDES

2,4-D
 2,4-DB
 2,4,5-T
 2,4,5-TP (silvex)
 Dalapon
 Dicamba
 Dichloroprop
 Dinoseb
 MCPA
 MCPP

VOLATILE ORGANICS

Acetone
 Benzene
 Bromodichloromethane
 Bromomethane
 Bromoform
 2-Butanone
 Carbon Disulfide
 Carbon tetrachloride
 Chlorobenzene
 Chlorethane
 2-Chloroethylvinyl ether
 Chloroform
 Chloromethane
 Dibromochloromethane
 1,1-Dichloroethane
 1,2-Dichloroethane
 1,1-Dichloroethene
 trans-1,2-Dichloroethene
 1,2-Dichloropropane
 cis-1,3-Dichloropropene
 trans-1,3-Dichloropropene
 Ethyl benzene
 2-Hexanone
 4-Methyl-2-pentanone
 Methylene chloride
 Styrene
 Tetrachloroethene
 Toluene
 Total Xylenes
 1,1,2,2-Tetrachloroethane
 1,1,1-Trichloroethane
 1,1,2-Trichloroethane
 Trichloroethene
 Vinyl acetate
 Vinyl chloride

VOLATILE ORGANICS

Benzene
 Bromobenzene
 Bromochloromethane

Bromodichloromethane
 Bromoform
 Bromoethane
 n-Butylbenzene
 sec-Butylbenzene
 tert-Butylbenzene
 Carbon tetrachloride
 Chlorobenzene
 Chloroethane
 Chloroform
 Chloromethane
 2-Chlorotoluene
 4-Chlorotoluene
 Dibromochloromethane
 1,2-Dibromo-3-chloropropane
 1,2-Dibromoethane
 Dibromomethane
 1,2-Dichlorobenzene
 1,3-Dichlorobenzene
 1,4-Dichlorobenzene
 Dichlorodifluoromethane
 1,1-Dichloroethane
 1,2-Dichloroethane
 1,1-Dichloroethene
 cis-1,2-Dichloroethene
 trans-1,2-Dichloroethene
 1,2-Dichloropropane
 1,3-Dichloropropane
 2,2-Dichloropropane
 1,1-Dichloropropene
 Ethylbenzene
 Hexachlorobutadiene
 Isopropylbenzene
 p-Isopropyltoluene
 Methylene chloride
 Naphthalene
 n-Propylbenzene
 Styrene
 1,1,1,2-Tetrachloroethane
 1,1,2,2-Tetrachloroethane
 Tetrachloroethene
 Toluene
 1,2,3-Trichlorobenzene
 1,2,4-Trichlorobenzene
 1,1,1-Trichloroethane
 1,1,2-Trichloroethane
 Trichloroethene
 Trichlorofluoromethane
 1,2,3-Trichloropropane
 1,2,4-Trimethylbenzene
 1,3,5-Trimethylbenzene
 Vinyl chloride
 o,m,p-Xylene

(Authorized by K.S.A. 1993 Supp. 65-3406; implementing K.S.A. 65-3401; effective Oct. 24, 1994.)

28-29-114. Corrective action. (a) Assessment of corrective measures.

(1) After consideration of the results from the release assessment conducted pursuant to K.A.R. 28-29-113(a)(3)(B), the owner or operator may be asked by the director to conduct an assessment of corrective measures that includes an analysis of:

(A) performance, reliability, ease of implementation, and potential impacts of appropriate potential remedies, including safety impacts, cross-media impacts, and control of exposure to any residual contamination;

(B) time required to begin and complete the remedy;

(C) costs of remedy implementation; and

(D) institutional requirements such as state or local permit requirements or other environmental or public health requirements that may substantially affect implementation of the remedy or remedies.

(2) The owner or operator shall continue to monitor in accordance with the assessment monitoring program as specified in K.A.R. 28-29-113(b).

(3) The owner or operator shall make a recommendation for one of the corrective measures assessed and include a rationale for the choice in the corrective measures assessment report.

(4) The owner or operator shall conduct a public hearing to discuss the range of corrective measures evaluated, the recommended corrective measures, and the rationale outlined in the assessment report.

(b) Remedy.

(1) After consideration of the results of the corrective-measures assessment and the public comments received, the owner or operator shall propose a remedy and a schedule for implementation to the department for approval. The remedy shall:

(A) be protective of human health and the environment;

(B) attain the groundwater protection standards;

(C) control the source or sources of releases so as to reduce or eliminate, to the maximum extent practicable, further releases of constituents identified in appendix II of K.A.R. 28-29-113 into the environment that may pose a threat to human health or the environment; and

(D) comply with standards for management of wastes as specified in paragraph (c)(4) of this regulation.

(2) In approving a remedy, the following evaluation factors shall be considered by the director:

(A) the long-term and short-term effectiveness and protectiveness of the potential remedy or remedies, along with the degree of certainty that the remedy will prove successful;

(B) the effectiveness of the remedy in controlling the source to reduce further releases;

(C) the ease or difficulty of implementing a potential remedy or remedies;

(D) practicable capability of the owner or operator, including a consideration of the technical and economic capability; and

(E) the degree to which community concerns are addressed by a potential remedy or remedies.

(3) A remedy other than that proposed by the owner or operator may be specified by the director.

(4) It may be determined by the director that remediation of a release of a constituent identified in appendix II of K.A.R. 28-29-113 from a MSWLF unit is not necessary if the owner or operator demonstrates to the satisfaction of the director any one of the following:

(A) the groundwater is additionally contaminated by substances that have originated from a source other than a MSWLF unit and those substances are present in concentrations such that cleanup of the release from the MSWLF unit would provide no significant reduction in risk to public health and the environment;

(B) remediation of the release or releases is technically impracticable; or

(C) remediation results in unacceptable cross-media impacts.

(5) A determination by the director that remediation is not necessary shall not affect the authority of the department to require the owner or operator to undertake source control measures or other measures that may be necessary to eliminate or minimize further releases to the groundwater, to prevent exposure to the groundwater, or to remediate the groundwater to concentrations that are technically practicable and significantly reduce threats to human health or the environment.

(6) The owner or operator may be required by the director to take any interim measures necessary to ensure the protection of human health and the environment. Interim measures shall, to the greatest extent practicable, be consistent with the

objectives of and contribute to the performance of any remedy selected.

(c) Implementation of the corrective action program.

(1) Based on the schedule established under paragraph (b)(1) above, the owner or operator shall implement the corrective action remedy selected under subsection (b).

(2) An owner or operator or the director may determine, based on information developed after implementation of the remedy has begun or other information, that compliance with requirements of paragraph (b)(1) is not being achieved through the remedy selected. In such cases, the owner or operator shall implement other methods or techniques that practicably achieve compliance with the requirements.

(3) If the owner or operator or director determines that compliance with requirements under paragraph (b)(1) cannot be practically achieved with any currently available methods, the owner or operator shall:

(A) obtain certification of a qualified groundwater scientist that compliance cannot be practically achieved with any currently available methods;

(B) implement alternate measures to control exposure of humans or the environment to residual contamination, as necessary to protect human health and the environment;

(C) implement alternate measures for control of the sources of contamination, or for removal or decontamination of equipment, units, devices, or structures; and

(D) submit a report to the director justifying the alternative measures prior to implementing the alternative measures.

(4) Each solid waste that is managed pursuant to a remedy or an interim measure shall be managed in accordance with Kansas waste management standards.

(5) Remedies selected pursuant to subsection (b) shall be considered complete when:

(A) the owner or operator complies with the groundwater protection standards established under K.A.R. 28-29-113(b)(13) at the point of compliance;

(B) compliance with the groundwater protection standards has been achieved by demonstrating that concentrations of constituents identified in appendix II of K.A.R. 28-29-113 have not exceeded the groundwater protection standard or standards for a period of three consecutive years

using the statistical procedures and performance standards in K.A.R. 28-29-112. An alternative length of time during which the owner or operator shall demonstrate that concentrations of constituents identified in appendix II of K.A.R. 28-29-113 have not exceeded the groundwater protection standard or standards may be specified by the director, taking into consideration the:

(i) extent and concentration of the release or releases;

(ii) behavior characteristics of the contaminants in the groundwater;

(iii) accuracy of monitoring or modeling techniques, including any seasonal, meteorological, or other environmental variabilities that may affect the accuracy; and

(iv) characteristics of the groundwater; and

(C) all actions required to complete the remedy have been satisfied.

(6) Upon completion of the remedy, the owner or operator shall submit to the director a copy of a certification that the remedy has been completed in compliance with the requirements of paragraph (b)(1) and initiate a detection monitoring plan. The certification shall be signed by the owner or operator and by a qualified groundwater scientist.

(7) Upon receipt of the certification, if the director determines that the corrective action remedy has been completed in accordance with the requirements of this section, the owner or operator shall be released from the requirements for financial assurance for corrective action under K.A.R. 28-29-122. Where appropriate and necessary, a new schedule for continued detection monitoring shall be established by the director. (Authorized by K.S.A. 1993 Supp. 65-3406; implementing K.S.A. 65-3401; effective Oct. 24, 1994.)

28-29-121. Closure requirements. (a)

Upon ceasing to receive waste, the unit shall be covered by a final cover consisting of a low permeability layer overlaid by a final protective layer constructed in accordance with the requirements of this regulation.

(b) Not later than 30 days after placement of the final lift of solid waste, closure activities shall begin, except as provided in subsection (c) of this regulation.

(c) The deadline for construction of the final cover may be extended by the director if:

(1) the unit has remaining capacity and there

is a reasonable likelihood that the MSWLF unit will receive additional wastes;

(2) leachate is to be recirculated for a period after final receipt of waste in accordance with provisions in K.A.R. 28-29-104(i)(6); or

(3) the owner or operator demonstrates to the department that initiation of closure will, of necessity, take longer than 30 days.

(d) For any unit receiving an extension of the closure deadline as provided in subsection (c), it may be required by the director that the owner or operator comply with some or all of the provisions for intermediate cover in K.A.R. 28-29-108(c).

(e) For each MSWLF receiving waste after October 9, 1993, the low permeability layer shall consist of one of the following:

(1) a geomembrane underlaid by 0.45 meters (18 inches) of compacted soil with a permeability of 1×10^{-5} centimeters per second or less if geomembrane is used in the bottom liner system; or

(2) the lesser of:

(i) 0.45 meters (18 inches) of compacted soil with a permeability less than or equal to the bottom liner system or natural subsoils; or

(ii) 0.45 meters (18 inches) of compacted soil with a permeability of 1×10^{-5} centimeters per second or less.

(f) If a geomembrane is used in the low permeability layer, it shall be constructed in accordance with the following standards.

(1) The geomembrane shall have strength to withstand the normal stresses imposed by the waste stabilization process.

(2) The geomembrane shall be placed over a prepared base free from sharp objects and other materials that may cause damage.

(3) The effects of landfill gas below the geomembrane shall be addressed.

(4) The effect of drainage through the final protective cover onto the geomembrane shall be addressed.

(g) The final protective layer shall be constructed in accordance with the following standards.

(1) The final protective layer shall cover the entire low permeability layer.

(2) The thickness of the final protective layer shall be at least as thick as the frost penetration depth at the landfill site and shall minimize root penetration of the low permeability layer.

(3) The final protective layer shall consist of soil material capable of supporting vegetation.

(h) The final protective layer shall be placed as soon as possible after placement of the low permeability layer to prevent desiccation, cracking, freezing or other damage to the low permeability layer.

(i) The owner or operator shall prepare a written closure plan that describes the steps necessary to close each MSWLF unit at any point during its active life in accordance with the cover design requirements. The closure plan, at a minimum, shall include the following information:

(1) plans for the final contours, type and depth of cover material, landscaping, and access control;

(2) an estimate of the largest area of the MSWLF unit ever requiring a final cover at any time during the active life;

(3) an estimate of the maximum inventory of wastes ever on-site over the active life of the MSWLF facility;

(4) final surface water drainage patterns and run-off retention basins;

(5) plans for the construction of liners, leachate collection and treatment systems, gas migration barriers or other gas controls;

(6) cross-sections of the site that delineate the disposal or storage locations of wastes. The cross-sections shall depict liners, leachate collection systems, the waste cover, and other applicable details;

(7) removal of all solid wastes from processing facilities; and

(8) a schedule for completing all closure activities.

(j) The closure plan shall be prepared not later than the effective date of this part, or by the initial receipt of waste, whichever is later, and shall be submitted to the department.

(k) A minimum of 60 days prior to beginning closure of each MSWLF unit, an owner or operator shall notify the department of the intent to close a unit.

(1) The owner or operator shall complete closure activities of each unit in accordance with the closure plan within 180 days following the beginning of closure. Extensions of the closure period may be granted by the director if the owner or operator demonstrates that:

(i) closure will, of necessity, take longer than 180 days; and

(ii) all steps have been taken and will continue to be taken to prevent threats to human health and the environment from the unclosed unit.

(m) Following closure of each MSWLF unit,

the owner or operator shall submit a certification to the department. The certification shall be signed by an independent registered professional engineer, or approved by the director, and shall verify that closure has been completed in accordance with the closure plan.

(n) Following closure of all MSWLF units in a facility, the owner or operator shall perform the following tasks.

(1) The owner or operator shall file a restrictive covenant with the office of register of deeds for the county in which the property is located, pursuant to the requirements of K.A.R. 28-29-20. The restrictive covenant shall, in perpetuity, notify any potential purchaser of the property that:

(A) the property has been used as a MSWLF; and

(B) the use of the property is subject to the restrictions of the post-closure plan in subsection (p) of this regulation.

(2) The owner or operator shall notify the director that a restrictive covenant has been recorded pursuant to the requirements of paragraph (1) of this subsection.

(o) The owner or operator may request permission from the director to remove the restrictive covenant if all wastes are removed from the facility.

(p) Post-closure care requirements.

(1) Following closure of each MSWLF unit, the owner or operator shall conduct post-closure care. Post-closure care shall be conducted for 30 years, except as provided under paragraph (2) of this subsection, and shall consist of at least the following activities:

(A) maintaining the integrity and effectiveness of any final cover, including making repairs to the cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover;

(B) maintaining and operating the leachate collection system, pursuant to K.A.R. 28-29-104(h);

(C) monitoring the groundwater in accordance with the requirements of K.A.R. 28-29-113 and maintaining the groundwater monitoring system, if applicable; and

(D) maintaining and operating the gas monitoring system in accordance with the requirements of K.A.R. 28-29-108(e).

(2) The length of the post-closure care period may be increased by the director if the director determines that the lengthened period is neces-

sary to protect human health and the environment.

(3) The owner or operator of each MSWLF unit must prepare a written post-closure plan that includes, at a minimum, the following information:

(A) plans for the post-closure operation and maintenance of liners, leachate and gas collection and treatment systems, cover material, run-off, retention basins, landscaping, and access control;

(B) plans for monitoring and surveillance activities during post-closure;

(C) name, address, and telephone number of the person or office to contact about the facility during the post-closure period; and

(D) a description of the planned uses of the property during the post-closure period.

(i) Post-closure use of the property shall not disturb the integrity of the final cover, liner or liners, or any other components of the containment system, or the function of the monitoring systems unless necessary to comply with the requirements in this regulation.

(ii) If the owner or operator demonstrates that disturbance of the final cover, liner or other component of the containment system, including any removal of waste, will not increase the potential threat to human health or the environment, the disturbance may be approved by the director.

(4) The owner or operator shall prepare a post-closure plan not later than the effective date of this regulation, or by the initial receipt of waste, whichever is later, and submit it to the director.

(5) Following completion of the post-closure care period for each MSWLF unit, the owner or operator shall submit a certification to the director. The certification shall be signed by an independent registered professional engineer, or approved by the director, and must verify that post-closure care has been completed in accordance with the post-closure plan. (Authorized by K.S.A. 1993 Supp. 65-3406; implementing K.S.A. 65-3401; effective Oct. 24, 1994.)

PART 8.—CONSTRUCTION AND DEMOLITION LANDFILLS

28-29-300. Definitions. (a) For the purposes of K.A.R. 28-29-300 through K.A.R. 28-29-325, the following definitions shall apply:

(1) "C&D" means construction and demolition.

(2) "C&D contact water" means liquid, consisting primarily of precipitation, that has infiltrated through the C&D waste or has been in contact with the C&D waste for any period of time.

This term shall include all runoff from the active area of the C&D landfill and all liquid derived from the C&D waste.

(3) "C&D landfill" shall have the meaning assigned to "construction and demolition landfill" in K.S.A. 65-3402, and amendments thereto.

(4) "C&D waste" shall have the meaning assigned to "construction and demolition waste" in K.S.A. 65-3402, and amendments thereto. For the purposes of this definition, the following clarifications shall apply:

(A) "Furniture and appliances" shall not include computer monitors and other computer components, televisions, videocassette recorders, stereos, and similar waste electronics.

(B) "Treated wood" shall include wood treated with any of the following:

- (i) Creosote;
- (ii) oil-borne preservatives, including pentachlorophenol and copper naphthenate;
- (iii) waterborne preservatives, including chromated copper arsenate (CCA), ammoniacal copper zinc arsenate (ACZA), and ammoniacal copper quaternary compound (ACQ); or
- (iv) any other chemical that poses risks to human health and the environment that are similar to the risks posed by the chemicals specified in paragraphs (a)(4)(B)(i) through (iii) of this subsection.

(C) "Untreated wood" shall include the following, if the wood has not been treated with any of the chemicals listed in paragraphs (a)(4)(B)(i) through (iv) of this regulation:

- (i) Coated wood, including wood that has been painted, stained, or varnished; and
- (ii) engineered wood, including plywood, laminated wood, oriented-strand board, and particle board.

(5) "Hazardous waste" means material determined to be hazardous waste as specified in K.A.R. 28-31-4.

(6) "Household hazardous waste" shall have the meaning specified in K.A.R. 28-29-1100.

(7) "Non-C&D waste" means all solid waste that is not specifically defined as construction and demolition waste in K.S.A. 65-3402, and amendments thereto. Non-C&D waste shall include hazardous waste and household hazardous waste.

(b) If a requirement in K.A.R. 28-29-300 through K.A.R. 28-29-325 conflicts with a requirement of K.A.R. 28-29-12 or K.A.R. 28-29-23, the requirement in K.A.R. 28-29-300 through K.A.R. 28-29-325 shall control.

This regulation shall take effect 90 days after publication in the Kansas register. (Authorized by and implementing K.S.A. 65-3406; effective March 17, 2004.)

28-29-302. Construction and demolition (C&D) landfill location restrictions. This regulation shall apply to each new C&D landfill and to each expansion of an existing C&D landfill that requires a permit modification.

(a) Definitions. For the purposes of this regulation, the following definitions shall apply:

(1) "Application" shall mean a permit application for a new C&D landfill or a permit modification application for the expansion of an existing C&D landfill.

(2) "New C&D unit" shall mean a new C&D landfill or the expansion of an existing C&D landfill.

(b) Floodplains.

(1) Each new C&D unit shall be located outside the 100-year floodplain, unless the applicant submits, as part of the application, one of the following:

(A) Justification that the location of the new C&D unit will not cause any of the following:

- (i) Restriction of the flow of the 100-year flood;
- (ii) reduction of the temporary water storage capacity of the floodplain; or
- (iii) washout of the C&D waste; or

(B) a statement from the U.S. army corps of engineers, if the site is under its jurisdiction, and a statement from the Kansas department of agriculture, division of water resources, indicating that neither of the following, if likely to occur as a result of the location of the new C&D unit, will adversely affect public health, safety, or the environment:

- (i) Restriction of the 100-year flood; and
- (ii) reduction of the temporary water storage capacity of the floodplain.

(2) As part of the application, the applicant shall submit an approval or exemption for the siting of the new C&D unit with respect to the floodplain from the following agencies:

- (A) The U.S. army corps of engineers; and
- (B) the Kansas department of agriculture, division of water resources.
- (c) Protection of threatened or endangered species.

(1) For the purposes of this subsection, the following definitions shall apply:

(A) "Destruction or adverse modification"

means a direct or indirect alteration of critical habitat that appreciably diminishes the likelihood of the survival and recovery of threatened or endangered species using that habitat.

(B) "Endangered species" means any species listed as such pursuant to the endangered species act, as referenced in K.S.A. 32-958, and amendments thereto.

(C) "Taking" means harassing, harming, pursuing, hunting, wounding, killing, trapping, capturing, or collecting, or attempting to engage in such conduct.

(D) "Threatened species" means any species listed as such pursuant to the endangered species act, as referenced in K.S.A. 32-958, and amendments thereto.

(2) Each new C&D unit shall be located to meet both of the following requirements:

(A) The new C&D unit shall not cause or contribute to the taking of any endangered or threatened species.

(B) The new C&D unit shall not result in the destruction or adverse modification of the critical habitat of endangered or threatened species.

(3) As part of the application, the applicant shall submit an approval or exemption for the siting of the new C&D unit with respect to threatened or endangered species from the following agencies:

(A) The U.S. fish and wildlife service;

(B) the Kansas department of wildlife and parks; and

(C) the Kansas biological survey.

(d) Surface waters.

(1) For purposes of this subsection, "surface waters" shall have the meaning specified in K.A.R. 28-16-28b.

(2) A new C&D unit shall not be located in any surface waters.

(3) A new C&D unit shall not cause or contribute to significant degradation of surface waters. As part of the application, the applicant shall provide the following information:

(A) Identification of all surface waters within one-half mile of the property boundary;

(B) the erosion, stability, and migration potential of materials used to construct the new C&D unit;

(C) the volume and characteristics of the waste to be managed in the new C&D unit;

(D) the impact on fish, wildlife, and other aquatic resources and their habitat from the release of C&D waste or C&D contact water;

(E) the potential effects of a catastrophic re-

lease of C&D waste or C&D contact water to the surface water and the resulting impact on the environment; and

(F) any additional information relative to the site that concerns the protection of ecological resources in surface waters.

(4) As part of the application, the applicant shall provide information verifying that the total area of wetlands, as defined by acreage and function, will be preserved by one or more of the following practices:

(A) Avoiding impact on the wetlands to the maximum extent practicable;

(B) minimizing impact on the wetlands to the maximum extent practicable; and

(C) offsetting unavoidable wetland impact through all appropriate and practicable compensatory mitigation actions, including the restoration of existing degraded wetlands or creation of man-made wetlands.

(5) As part of the application, the applicant shall submit an approval or exemption for the siting of the new C&D unit with respect to surface waters from the following agencies:

(A) The U.S. army corps of engineers;

(B) the U.S. fish and wildlife service;

(C) the Kansas department of agriculture, division of water resources;

(D) the Kansas department of wildlife and parks; and

(E) the Kansas biological survey.

(e) Buffer zones.

(1) Each new C&D unit shall be located at least 500 feet from each dwelling, school, or hospital that was occupied on the date when the department first received the application, unless the owner of the dwelling, school, or hospital consents in writing to the siting of the C&D unit less than 500 feet from the dwelling, school, or hospital.

(2) Each new C&D unit shall be located a minimum of 150 feet from the property line.

(3) The applicant may petition the secretary for a reduction of the buffer zone distances, if the county commission of the county in which the landfill is located approves the request.

(4) As part of the application, the applicant shall submit an approval or exemption for the siting of the new C&D unit with respect to buffer zones from the following agencies:

(A) The Kansas state conservation commission;

(B) the Kansas corporation commission; and

(C) the Kansas water office.

(f) Navigable streams and public drinking water supplies.

(1) Each new C&D unit shall be located according to the requirements of K.S.A. 65-3407, and amendments thereto.

(2) As part of the application, the applicant shall submit an approval or exemption for the siting of the new C&D unit with respect to public drinking water supplies from the department's bureau of water.

(g) Vertical separation from groundwater.

(1) At each new C&D unit, there shall be a minimum vertical separation of five feet from the lowest point of the unit to the highest predicted groundwater elevation, based on historical data or site conditions, in the uppermost aquifer underlying the disposal area. The minimum vertical separation shall be provided by naturally occurring, in-situ soil or geologic material, or alternative material that ensures the protection of public health, safety, and the environment.

(2) As part of the application, the applicant shall submit one of the following:

(A) On-site groundwater elevations and a prediction, based on historical data or site conditions, of the highest groundwater elevation in the uppermost aquifer underlying the disposal area; or

(B) other evidence that the highest groundwater elevation in the vicinity is five feet or more from the lowest point of the C&D landfill.

(h) Unstable areas.

(1) For purposes of this subsection, the following definitions shall apply:

(A) "Areas susceptible to mass movement" means those areas of influence, including areas characterized as having active, or a substantial possibility of, mass movement, where the movement of earth material at, beneath, or adjacent to the C&D landfill, because of natural or human-induced events, results in the downslope transport of soil and rock material by means of gravitational influence. Mass movement shall include the following:

- (i) Landslides;
- (ii) avalanches;
- (iii) debris slides and flows;
- (iv) solifluction;
- (v) block sliding; and
- (vi) rock falls.

(B) "Karst terrain" means an area where karst topography, with its characteristic surface and subterranean features, is developed as the result of dissolution of limestone, dolomite, or other sol-

uble rock. The physiographic features characteristic of karst terrains may include the following:

- (i) Sinkholes;
- (ii) sinking streams;
- (iii) caves;
- (iv) large springs; and
- (v) blind valleys.

(C) "Poor foundation areas" means those areas where features exist that indicate that a natural or human-induced event could result in inadequate foundation support for the structural components of a C&D landfill.

(D) "Structural components" means liners, leachate collection systems, final covers, run-on systems, runoff systems, and any other component used in the construction and operation of the C&D landfill that is necessary for protection of public health, safety, and the environment.

(E) "Unstable area" means a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity of some or all of the C&D landfill structural components used to prevent releases from a landfill. This term shall include poor foundation areas, areas susceptible to mass movements, and karst terrains.

(2) As part of the application, the applicant for each C&D landfill shall submit an assessment of the stability of the area and shall consider the following factors when determining whether or not an area is unstable:

(A) On-site or local conditions that could result in significant differential settling;

(B) on-site or local geologic or geomorphologic features; and

(C) on-site or local human-made features or events, both surface and subsurface.

(3) As part of the application, the applicant for each C&D landfill proposed to be located in an unstable area shall provide information verifying that engineering measures have been incorporated into the C&D landfill's design to ensure that the integrity of the structural components of the C&D landfill will not be compromised.

(4) As part of the application, the applicant shall submit an approval or exemption for the siting of the new C&D unit with respect to stability from the Kansas geological survey.

(i) Cultural resources.

(1) Each new C&D unit shall be located so that the unit does not pose a threat of harm or destruction to the essential features of an irreplaceable historic or archaeological site that is listed on the

Kansas state register of historic sites, pursuant to K.S.A. 75-2721 and amendments thereto.

(2) As part of the application, the applicant shall submit an approval or exemption for the siting of the new C&D unit with respect to cultural resources from the Kansas state historical society.

(j) Waivers. The requirement to submit a specific approval, exemption, or demonstration as part of the permit application may be waived by the secretary.

This regulation shall take effect 90 days after publication in the Kansas register. (Authorized by and implementing K.S.A. 65-3406; effective March 17, 2004.)

28-29-304. Construction and demolition (C&D) landfill design. The design requirements of this regulation shall apply to all C&D landfills.

(a) Facility access. The owner or operator of each C&D landfill shall provide fencing or other barriers, with one or more gates that can be locked to restrict access to the C&D landfill when the C&D landfill is not open for business.

(b) Facility signage. The owner or operator of each C&D landfill shall post permanent signage at the facility.

(1) The following information shall be posted at the entrance to the facility:

(A) The name of the facility;

(B) the landfill permit number;

(C) the facility's telephone number, if there is one;

(D) the emergency telephone number; and

(E) a statement indicating who may bring waste to the landfill for disposal and, if appropriate, the hours of operation.

(2) Information concerning the types of waste that are accepted or not accepted for disposal or recycling shall be posted at the facility's entrance or at a location prominently visible to the public inside the facility's boundaries.

(c) Facility roads.

(1) The owner or operator of each C&D landfill shall design and construct on-site roads to accommodate expected traffic flow in a safe and efficient manner.

(2) On-site facility roads shall be of all weather construction and shall be negotiable at all times.

(3) Load limits on bridges and on-site roads shall be sufficient to support all traffic loads generated by the use of the facility.

(d) Storm water control. The owner or operator

of each C&D landfill shall design and construct a storm water control system.

(1) The storm water control system shall prevent flow onto the active area of the landfill of discharge resulting from the 25-year, 24-hour storm and lesser storms.

(2) The system shall consist of trenches, conduits, berms, and proper grading, as needed.

(3) The system shall control erosion of cover materials.

(4) Storm water discharge from the permitted property shall be reduced to predevelopment discharge rates and nonerosive velocities.

(e) C&D contact water control and management. The owner or operator of each C&D landfill shall design and construct C&D contact water control and management systems that meet the following requirements:

(1) The C&D contact water control system shall control storm water runoff from the active area of the C&D landfill.

(2) The C&D contact water management system shall meet one or more of the following requirements:

(A) Storage of C&D contact water.

(i) C&D contact water shall be stored in the permitted C&D waste disposal units, or in structures or ponds on the permitted C&D waste disposal site.

(ii) The storage system shall have provisions for overflow.

(iii) The storage system may be designed to allow percolation of C&D contact water through subsurface soils.

(B) On-site treatment of C&D contact water. The treatment system shall produce water of a quality adequate for the intended use or method of disposal.

(C) Beneficial reuse of C&D contact water on the permitted C&D waste disposal site. Beneficial reuse may include the following:

(i) Wetting of on-site roads or other site areas for dust control;

(ii) irrigation of vegetated areas, not including agricultural crops intended for human or animal consumption;

(iii) distribution on C&D waste, as necessary, for fire protection; or

(iv) other uses that do not adversely impact public health, safety, and the environment.

(D) Discharge or hauling of C&D contact water to an off-site treatment facility.

(i) The operator of each C&D landfill may dis-

charge or haul C&D contact water to the off-site treatment facility only with written permission from the owner or operator of the off-site treatment facility. As part of the permit application or permit modification application, the applicant or permittee shall submit a copy of the written permission.

(ii) The off-site treatment facility shall have all required permits and approvals required for proper treatment of the C&D contact water. As part of the permit application or permit modification application, the applicant or permittee shall submit a copy of all required permits and approvals.

(iii) Discharge of C&D contact water to the off-site treatment facility shall conform with K.A.R. 28-16-1 through K.A.R. 28-16-7.

(E) Discharge of C&D contact water to surface waters. The applicant or permittee shall be required to obtain a national pollutant discharge elimination system (NPDES) permit from the secretary.

(F) Discharge of C&D contact water to deep injection wells. The applicant or permittee shall be required to obtain a permit from the secretary for installation and operation of deep injection wells.

(3) The C&D contact water control and management system shall meet the following requirements:

(A) Operate for the entire design period, including the active operating and closure phases of the C&D landfill;

(B) allow for the management of C&D contact water during routine maintenance and repairs;

(C) have the capacity to handle the water generated from a 25-year, 24-hour storm and lesser storms;

(D) operate via gravity flow whenever possible; and

(E) be chemically resistant to the contact water expected to be produced.

(f) Phasing of landfill development. The owner or operator of each C&D landfill shall develop the landfill in phases, according to the operating plan.

(1) The phasing plan shall provide for the sequential construction, filling, and closure of discrete units or parts of units.

(2) In determining the size of each phase, the owner or operator shall consider seasonal differences in weather and the amount of C&D waste received.

(3) Each phase shall be completed by covering all exposed waste with intermediate cover.

(A) The intermediate cover shall consist of a minimum of one foot of soil and shall meet the following requirements:

- (i) Limit air intrusion to control the risk of fire;
- (ii) control litter; and
- (iii) limit vector harborage.

(B) Alternative material, if approved by the secretary, may be used for intermediate cover. The alternative material shall consist of material acceptable for disposal in the C&D landfill and shall meet the requirements specified in paragraphs (f)(3)(A)(i) through (f)(3)(A)(iii) of this regulation.

(g) Final cover. Within six months after the last placement of waste in the unit, the owner or operator shall construct a final cover in accordance with the approved facility closure plan.

(1) The final cover shall include the following:

(A) A low-permeability layer consisting of a minimum of 18 inches of compacted soil having permeability equal to or less than the natural subsoils or the constructed liner, and no greater than 1×10^{-5} centimeters per second; and

(B) a protective soil layer consisting of a minimum of 12 inches of topsoil and appropriate vegetative cover.

(2) The final cover shall be graded with a minimum slope of two percent and a maximum slope of 3:1, horizontal to vertical.

This regulation shall take effect 90 days after publication in the Kansas register. (Authorized by and implementing K.S.A. 65-3406; effective March 17, 2004.)

28-29-308. Construction and demolition (C&D) landfill operations. The owner or operator of each C&D landfill shall comply with the following requirements.

(a) Aesthetics. The operator shall control odors and particulates, including dust and litter, by the application of cover material, sight screening, or other means to prevent a nuisance or damage to human health or the environment.

(b) Air quality. The owner or operator shall conform to all applicable provisions of K.S.A. 65-3001 et seq., and amendments thereto, and all regulations adopted under those statutes.

(c) Fire protection.

(1) The owner or operator shall make arrangements for fire protection services if a fire protection district or other public fire protection service is available. If this service is not available, the

owner or operator shall provide practical alternate arrangements.

(2) If there is a fire at the site, the operator shall perform all of the following:

(A) Initiate and continue the use of appropriate fire fighting methods until all smoldering, smoking, and burning cease;

(B) notify the department within one business day and submit a written report to the department within one week; and

(C) upon completion of fire fighting activities, cover and regrade each disruption of finished grades, covered surfaces, or completed surfaces.

(d) Water management.

(1) The owner or operator shall construct and maintain the storm water control systems according to the approved design and operating plans.

(2) The owner or operator shall manage all storm water that becomes commingled with C&D contact water as C&D contact water.

(3) The owner or operator shall manage all C&D contact water according to the approved design and operating plans. If the contact water control and management system fails, the owner or operator shall notify the department by the end of the next business day.

(4) The owner or operator shall not cause a discharge of pollutants into the waters of the state. If such a discharge occurs, the owner or operator shall immediately notify the department, as specified in K.A.R. 28-48-2.

(e) Access control.

(1) Access to each C&D landfill shall be limited to the hours when the owner or operator is at the site.

(2) The owner or operator shall keep all access-control gates locked when the owner or operator is not at the landfill.

(3) Access by unauthorized vehicles and pedestrians shall be prohibited.

(f) Waste screening. The owner or operator shall implement the waste screening program designated in the operating plan.

(1) The operator shall accept for disposal only "construction and demolition waste," as defined in K.S.A. 65-3402, and amendments thereto.

(2) The operator shall not accept for disposal any "liquid waste," as defined in K.A.R. 28-29-108.

(3) The operator may refuse to accept any material that has not been removed from the delivery vehicle. The operator may return non-C&D waste that has been removed from the delivery vehicle

to the hauler. The operator shall document the refusal or return by recording the following information:

(A) The date and time of the refusal or return;

(B) the driver's name;

(C) the delivery vehicle's license plate number;

(D) the hauling company's name and address;

(E) the origin of the waste;

(F) the size of the rejected load or amount of returned waste;

(G) the reason for rejection or return; and

(H) the name of the person who inspected the waste.

(4) The operator shall remove from the landfill all non-C&D waste that has not been returned to the hauler, for disposal at a site permitted to accept the non-C&D waste. The operator shall store all non-C&D waste in a manner that does not result in a nuisance or environmental hazard.

(5) If a regulated hazardous waste, regulated polychlorinated biphenol (PCB) waste, or medical waste is brought to the facility, the owner or operator shall notify the department within one business day and shall meet the following requirements:

(A) The notification requirement shall apply to waste that has been accepted at the facility and waste that has been rejected.

(B) The notification shall include the type, amount, and source of the waste.

(C) The waste shall be managed in accordance with the hazardous waste, PCB, or medical waste regulations, as appropriate.

(6) The operator shall keep a record of each day that waste is screened at the landfill.

(7) The waste screening area shall be clearly delineated using flags, signs, or markers, and shall have an area compatible with the average daily volume of waste, as approved in the operating plan.

(8) The waste screening area shall be cleared of waste no more than 24 hours after the waste has been deposited.

(9) The operating plan may specify that waste screening may take place at the point of generation rather than at the landfill.

(g) Waste placement.

(1) At least once each day that waste has been received, the operator shall dispose of the C&D waste using the following method:

(A) Screen the waste at a location other than directly on the working face; and

(B) distribute the waste uniformly on the working face.

(2) The operator shall place the waste in a manner and at a rate that provide mass stability during all phases of operation.

(h) Waste compaction.

(1) The operator shall compact the waste daily, unless an alternate schedule has been designated in the operating plan.

(2) The operator shall compact the waste as densely as is practical.

(A) The degree of compaction may vary depending on the waste type, lift thickness, placement method, and equipment used.

(B) The method of compaction shall include at least two passes of compaction equipment over the waste at the time it is placed on the working face or, at a minimum, by the end of the day that the waste is placed on the working face.

(i) Record of waste disposed. The operator shall record and maintain the following information for each load of C&D waste placed in the landfill:

(1) The tons or volume of C&D waste;

(2) the state in which the waste was generated; and

(3) if the waste is exempt from the state solid waste tonnage fee, as specified in K.S.A. 65-3415b and amendments thereto, the reason for the exemption.

(j) Record of waste recycled. The operator shall record and maintain the following information for all waste diverted by the landfill for recycling:

(1) The type of waste, if any waste other than C&D waste is diverted for recycling;

(2) the number of tons or the volume of each type of waste;

(3) the state in which the waste was generated; and

(4) the name and address of the facility to which the waste was sent for recycling.

(k) Cover requirements.

(1) The operator shall apply cover material over every 2,000 tons of waste disposed, with the following exceptions:

(A) Cover shall be applied at least once every 120 days.

(B) No facility shall be required under these regulations to apply cover more often than once a week.

(2) The cover shall consist of a minimum of one foot of soil and shall meet the following requirements:

(A) Limit air intrusion to control the risk of fire;

(B) control litter; and

(C) limit vector harborage.

(3) Alternative material, if approved by the secretary, may be used for cover. The alternative material shall consist of material acceptable for disposal in the C&D landfill and shall meet the requirements specified in paragraphs (k)(2)(A) through (k)(2)(C) of this regulation.

(4) The operator of the facility shall maintain a log of the dates on which cover is applied.

(l) Salvaging.

(1) The operator shall permit salvaging or reclamation of materials only if working space specifically designed for salvaging C&D wastes is provided.

(2) The salvage operation and salvaged materials shall be controlled to prevent interference with the prompt disposal of C&D wastes.

(3) All salvage operations shall be conducted in a manner that does not create a nuisance.

(m) Scavenging. The operator shall not permit any scavenging at the C&D landfill.

(n) Communication. The owner or operator shall provide two-way communications accessible to the operator working at the disposal unit.

(o) Safety. The owner or operator shall provide an operational safety program for each employee at the C&D landfill.

(p) Recordkeeping.

(1) Long-term retention of permits and plans. The owner or operator shall retain all documents concerning the landfill permit and landfill construction for a minimum of five years after the completion of the postclosure care period. The documents shall be stored in a location designated in the facility operations plan and shall be readily accessible to the department. The documents concerning the landfill permit and landfill construction shall include the following:

(A) The permit application and all supporting documents;

(B) all renewal documents;

(C) the construction quality assurance (CQA) plans and reports;

(D) additional information as required by the conditions of the permit; and

(E) the following documents, which shall be stored at the facility while the facility is active:

(i) The current permit;

(ii) the permit conditions;

(iii) the design plans;

(iv) the operations plan;

(v) a contingency plan;

- (vi) the closure plan; and
- (vii) the postclosure plan.

(2) Short-term retention of operating records. The owner or operator shall retain all documents concerning operations at the landfill for a minimum of five years after the event occurs. The documents shall be stored at the facility, or at another site designated in the operating plan, and shall be readily accessible to the department. The documents concerning operations at the landfill shall include the following:

- (A) The waste screening records;
- (B) the records of refused and returned waste;
- (C) the records of all waste disposed of, whether on-site or offsite;
- (D) the records of waste recycled;
- (E) employee training records;
- (F) gas monitoring results, if applicable;
- (G) groundwater monitoring results, if applicable;
- (H) documentation of postclosure inspections; and
- (I) additional information as required by the conditions of the permit.

(q) Reporting. The owner or operator shall report the following information to the department on forms provided by the department:

- (1) Disposal information, including the following:
 - (A) The number of tons or the volume of the C&D waste; and
 - (B) the state in which the C&D waste was generated;
- (2) recycling information, including all of the following:
 - (A) The type of waste, if any waste other than C&D waste was diverted for recycling;
 - (B) the number of tons or the volume of each type of waste;
 - (C) the state in which the waste was generated; and
 - (D) the name and address of the facility to which the waste was sent for recycling;
- (3) information required for permit renewal; and
- (4) additional information as required by the conditions of the permit.

This regulation shall take effect 90 days after publication in the Kansas register. (Authorized by and implementing K.S.A. 65-3406; effective March 17, 2004.)

28-29-321. Construction and demoli-

tion (C&D) landfill closure and postclosure care. This regulation shall apply to each C&D landfill that closes after the effective date of this regulation.

(a) Notification of closure. The owner or operator of each C&D landfill shall notify the department, in writing, at least 60 days before each of the following events:

- (1) The closure of each disposal unit at the landfill; and
- (2) the final closure of the C&D landfill.

(b) Closure activities.

(1) The owner or operator of each C&D landfill shall close the landfill according to the approved closure plan and shall install the final cover within six months of the last receipt of waste at the landfill.

(2) The owner or operator shall notify the secretary when closure activities have been completed and shall arrange for a closure inspection by the secretary.

(c) Postclosure care. After the secretary approves the closure of the C&D landfill, the owner or operator shall conduct postclosure care for 30 years.

(1) During the postclosure care period, the owner or operator shall perform and document annual inspection and maintenance of the cover to ensure the integrity and effectiveness of the final cover, including the following:

- (A) Making repairs to the cover as necessary to correct the effects of settlement, subsidence, erosion, and other events; and
- (B) preventing run-on and runoff from eroding or otherwise damaging the final cover.

(2) After five years of inspections, the owner or operator may submit a request to the secretary for a less frequent inspection schedule.

(d) Certification. Following completion of the postclosure care period for the C&D landfill, the owner or operator shall submit a certification to the secretary. The certification shall be signed by a professional engineer licensed in Kansas and shall verify that the postclosure care requirements have been fulfilled in accordance with the postclosure plan.

(e) Lengthened postclosure care period. The length of the postclosure care period may be increased if the secretary determines that the lengthened period is necessary to protect public health, safety, and the environment.

This regulation shall take effect 90 days after publication in the Kansas register. (Authorized by

and implementing K.S.A. 65-3406; effective March 17, 2004.)

28-29-325. Construction and demolition (C&D) landfill permits. (a) Permit application. Each person that plans to establish a C&D landfill shall submit a permit application to the secretary on forms furnished by the department. The permit application shall include the following items:

(1) Design plans. The C&D landfill design plan shall include the following items:

(A) A plan showing the section, township, range, and site boundaries;

(B) a description of all adjacent properties, including the land use and the names and addresses of property owners. If the proposed site is adjacent to a public road or street, the property across the street or road shall also be described;

(C) a topographic map of the existing site with a contour interval of two feet or less;

(D) a minimum of three cross sections of the proposed C&D waste disposal units, with the water table shown;

(E) a plan showing the following information:

(i) The size and location of all pertinent human-made and natural features of the site, including roads, fire lanes, ditches, berms, culverts, structures, wetlands, floodways, and surface waters;

(ii) the projected site utilization with all site structures, including buildings, fences, gates, entrances and exits, parking areas, on-site roadways, and signs; and

(iii) the location of all water supplies;

(F) a series of phasing plans showing landfill development over the life of the landfill. Each plan shall indicate the location of all peripheral features, including support buildings, access roads, drainage ditches, sedimentation basins, all other storm water management features, and screening berms;

(G) an erosion control plan outlining management practices to control erosion from disturbed areas;

(H) a storm water control plan that includes an implementation schedule and copies of the notice of intent submitted to the department's bureau of water;

(I) a C&D contact water management plan that includes an implementation schedule; and

(J) if the landfill is located in an unstable area according to the criteria specified in K.A.R. 28-29-302, a description of the engineering measures

incorporated into the landfill's design to ensure that the integrity of the structural components of the C&D landfill will not be disrupted.

(2) Maps. The applicant shall submit the following maps:

(A) A 7.5-minute series map of the area, as typically available from the U.S. geological survey, indicating the property boundary;

(B) a soil map of the area, as typically available from the U.S. department of agriculture natural resources conservation services; and

(C) a 100-year floodplain map of the area, if one has been developed for the area by the federal emergency management agency (FEMA). If a FEMA map is not available, the applicant shall submit a map showing the estimated location of the 100-year floodplain based on historical or hydrogeologic data.

(3) Operating plan. The written operating plan shall include the following information:

(A) The proposed operating hours of the facility;

(B) the origin and composition of the waste;

(C) the expected daily volume of all C&D waste to be accepted at the facility;

(D) the procedures for screening incoming waste for non-C&D waste;

(E) the procedures for storing and removing all non-C&D waste from the site for recycling or for disposal at a site permitted to accept the non-C&D waste;

(F) a description of all salvaging operations on-site;

(G) the procedures for handling appliances that will be disposed of;

(H) the procedure for handling nonfriable asbestos;

(I) the procedures for placing and compacting the waste;

(J) the safety procedures for personnel and public on-site;

(K) the cover application rate, including the thickness and frequency of application;

(L) the procedures for dust suppression and fugitive emission control at the disposal unit and on haul roads;

(M) a description of storm water control measures to be implemented during operation of the facility;

(N) a description of the facility's water supply system, including the source and intended uses;

(O) a description of all machinery and equipment to be used, including the design capacity;

(P) a contingency plan for the following:
(i) Emergencies, including fires and spills; and
(ii) any other unexpected suspension of operations, including equipment breakdown and personnel emergencies;

(Q) a description of when and why the operator would suspend receipt of waste at the facility, including the following:

(i) Temporary situations;
(ii) final closure due to conditions of the permit; and

(iii) attainment of final elevations;

(R) a drawing that delineates and numerates phases in the landfill development sequence, along with a written description of the facility development approach and the waste placement progression in individual units;

(S) the proposed capacity of the facility; and

(T) the expected life of the facility.

(4) Closure plan drawings. The closure plan drawings shall include the following items:

(A) Surface drawings of the site showing the following information:

(i) Access control;
(ii) final contours, with a contour interval of two feet or less;
(iii) seeding specifications;
(iv) landscaping;
(v) erosion control devices;
(vi) final surface water drainage patterns and runoff retention basins; and
(vii) waste disposal locations; and

(B) cross sections of the site that depict the following:

(i) The disposal or storage locations of wastes;
(ii) the type and depth of cover material;
(iii) the C&D contact water collection systems, if present; and
(iv) any other pertinent features.

(5) Closure plan text. The closure plan text shall include the following information:

(A) An estimate of the largest area of the C&D waste disposal unit requiring final cover at any time during the active life of the facility;

(B) a description of the steps necessary to close each C&D waste disposal unit at any point during its active life in accordance with the cover design requirements;

(C) a schedule for completing all closure activities; and

(D) an estimate of the final volume of wastes disposed of at the C&D landfill facility.

(6) Postclosure plan. The postclosure plan shall include the following:

(A) A description of the planned uses of the property during the postclosure period. The postclosure use of the property shall not disturb the integrity of the final cover or any other components of the containment system unless either of the following conditions applies:

(i) The disturbance is necessary to comply with the requirements in this regulation; or

(ii) the owner or operator submits justification that disturbance of the final cover or other components of the containment system, including removal of waste, will not increase the potential threat to public health, safety, or the environment; and

(B) a schedule of proposed maintenance activities for the postclosure care period, including the following:

(i) Postclosure operation and maintenance of cover material, runoff controls, retention basins, landscaping, and access control and, if present at the facility, the C&D contact water collection system;

(ii) the inspections during postclosure; and

(iii) the name, address, and telephone number of the person or office to contact about the facility during the postclosure period.

(7) Restrictive covenant. Each applicant shall file a restrictive covenant or notice of restrictions with the county register of deeds in the county in which the landfill will be located. The restrictive covenant or notice of restrictions shall meet the requirements of K.A.R. 28-29-20.

(8) Financial information.

(A) The applicant shall submit the following items on forms provided by the department:

(i) A closure cost estimate for third-party costs;
(ii) a postclosure estimate for third-party costs, unless exempted by K.A.R. 28-29-2101;

(iii) documentation of financial assurance; and
(iv) a business concern disclosure statement or public entity disclosure statement.

(B) The applicant shall also submit proof of liability insurance.

(9) Construction quality assurance (CQA) plan.

(A) The CQA plan shall include a detailed description of all CQA activities that will be used during construction to manage the installed quality of the facility, including the following items:

(i) Storm water management structures;
(ii) C&D contact water management systems;
(iii) base elevations;

(iv) final cover; and
 (v) any other components of the waste containment and management system.

(B) The CQA plan shall be tailored to the specific facility to be constructed and shall be completely integrated into the project's plans and specifications.

(C) The CQA plan shall include the responsibilities and qualifications of the CQA personnel.

(D) The CQA personnel and the CQA certifying professional engineer shall not be required to be employed by an organization that operates independently of the landfill contractor, owner, or permit holder.

(10) Additional items. Each applicant shall submit to the secretary the following items:

(A) All demonstrations, approvals, and exemptions required by K.A.R. 28-29-302;

(B) all information required by K.A.R. 28-29-304; and

(C) the permit application fee, unless exempted by K.S.A. 65-3407 and amendments thereto.

(b) Permit modifications.

(1) Each owner or operator shall notify the secretary, in writing, of all modifications to the approved plans. The owner or operator shall implement each modification only after the secretary has provided written approval of the modification.

(2) Each facility that has a permit issued before the effective date of this regulation shall comply with the following within no more than 90 days after the effective date of this regulation:

(A) If the facility does not have an operating plan, submit an operating plan to the department;

(B) if the facility has an operating plan that does not meet the requirements of subsection (a) of this regulation, submit an amended operating plan;

(C) if the facility does not have a design plan, submit a design plan to the department; and

(D) if the facility has a design plan that does not meet the requirements of subsection (a) of this regulation, submit an amended design plan.

(c) Engineer's seal. The following documents, if submitted as part of a permit application, as part of a permit modification, or a requirement of subsection (b) of this regulation, shall be prepared and sealed by a professional engineer licensed to practice in Kansas:

- (1) Plans;
- (2) specifications;
- (3) addendums;
- (4) as-built drawings; and

(5) any other documents required for a permit application or permit modification that describe the design, construction, or closure of a C&D landfill, except financial documents.

(d) Permit renewal. The owner or operator of each active C&D landfill shall renew the permit annually by submitting the following information to the secretary at least 30 days before the permit renewal date:

(1) An updated map of the land area used for past and present waste disposal;

(2) updated third-party closure cost estimates;

(3) updated third-party postclosure cost estimates, unless exempted by K.A.R. 28-29-2101;

(4) documentation of updated financial assurance;

(5) a current certificate of liability insurance; and

(6) the renewal fee, unless exempted by K.S.A. 65-3407 and amendments thereto. (Authorized by and implementing K.S.A. 65-3406; effective Jan. 2, 2004.)

PART 9.—STANDARDS FOR THE MANAGEMENT OF HOUSEHOLD HAZARDOUS WASTE

28-29-1100. Household hazardous waste. General. (a) Applicability. K.A.R. 28-29-1100 through K.A.R. 28-29-1107 shall apply to each household hazardous waste facility as defined in K.S.A. 65-3402, and amendments thereto. Subsection (f) of this regulation shall apply to collection events that take place at a site that is not a permanent household hazardous waste collection site. The standards in these regulations shall not exempt any materials from applicable state or federal regulations that are more stringent than these regulations. In each case in which the requirements of the household hazardous waste regulations K.A.R. 28-29-1100 through K.A.R. 28-29-1107 conflict with the requirements of the administrative procedure and solid waste management regulations in K.A.R. 28-29-6 through K.A.R. 28-29-23, the requirements of K.A.R. 28-29-1100 through K.A.R. 28-29-1107 shall control.

(b) Definitions. For the purposes of these regulations, the following definitions shall apply:

(1) "Household hazardous waste" or "HHW" means household waste that would be determined to be hazardous waste according to K.A.R. 28-31-4 (b) if the waste were not household waste.

(2) "Nonhazardous household waste" or "NHHW" means household waste that is not HHW.

(3) “Small quantity generator” shall have the meaning specified in K.A.R. 28-31-2.

(4) “USDOT hazard class or division” means the hazard class or division defined by the United States department of transportation and adopted by reference in K.A.R. 28-31-4 (e).

(c) Used oil. Each HHW facility that accepts used oil from household do-it-yourselfers or exempt farmers shall manage the used oil in accordance with K.A.R. 28-31-16 upon receipt of the used oil at the HHW facility’s central collection center. Each HHW facility that transports used oil from businesses shall manage the used oil in accordance with K.A.R. 28-31-16 upon receipt of the used oil at the business site.

(d) Small quantity generator (SQG) waste. Each HHW facility that is permitted to accept SQG waste shall manage all SQG waste that is not hazardous waste in the same manner as that for nonhazardous household waste and shall manage all SQG hazardous waste in the same manner as that for HHW.

(e) Other hazardous waste. Any HHW facility may accept hazardous waste from a source other than a household or an SQG in an emergency, if the facility’s operating plan contains procedures to follow in such an emergency.

(f) Temporary collection events. Each temporary collection event at a fixed site shall be conducted only under the direct supervision of a permitted HHW facility or in accordance with a plan approved by KDHE. (Authorized by and implementing K.S.A. 1999 Supp. 65-3406 and 65-3460; effective June 16, 2000.)

28-29-1101. Household hazardous waste facility design. The owner or operator of each HHW facility shall perform the following:

(a) Design and construct each access road to accommodate expected traffic flow in a safe and efficient manner;

(b) construct the floor or base of each household waste receiving area and each processing area of concrete or asphalt;

(c) design and construct each storage area for household waste, except used oil stored in tanks, with a weather-resistant, permanent roof; and

(d) provide secondary containment for all HHW stored for disposal or recycling. The secondary containment shall be capable of containing either 110 percent of the volume of the largest container or 10 percent of the total volume of all the containers, whichever is greater. (Authorized

by and implementing K.S.A. 1999 Supp. 65-3406 and 65-3460; effective June 16, 2000.)

28-29-1102. Household hazardous waste facility operations. (a) Nonhazardous household waste.

(1) Each HHW facility operator shall store and manage all NHHW according to the facility’s operating plan and the following requirements:

(A) Place the NHHW in the designated area, as described in the facility operating plan, within one week after it is received;

(B) ensure that each NHHW storage container or each NHHW storage area has a label or sign designating its contents;

(C) when NHHW is present, inspect all NHHW storage areas weekly to assess waste volume and container integrity, and document these inspections in a log that is dated and either signed or initialed by the person who conducted the inspection; and

(D) store NHHW to be distributed for use in a manufacturer’s original container or, for latex paint, in a compatible container provided by the HHW facility. Each container that will be distributed for use shall be labeled, closed, and nonleaking.

(2) Each HHW facility operator shall distribute for use, recycling, or disposal all NHHW accepted by the facility according to all of the following requirements:

(A) NHHW may be distributed for use in a manner equivalent to its originally intended purpose.

(B) NHHW may be disposed of in a permitted municipal solid waste landfill. However, latex paint and all other liquids shall be disposed of in a permitted municipal solid waste landfill only if one of the following conditions is met:

(i) The paint or other liquid is solidified.

(ii) The paint or other liquid is in the original container, and the volume of the container is no greater than five gallons.

(C) NHHW may be disposed of in a sanitary sewer connected to a publicly owned treatment works with written authorization from the operators of the publicly owned treatment works.

(D) The HHW facility may choose to manage certain types of NHHW, as described in the facility’s operating plan, according to the requirements in subsection (b) of this regulation.

(b) Household hazardous waste.

(1) Each HHW facility operator shall store and

manage all HHW according to the facility's operating plan and all of the following requirements:

(A) Place the HHW in the designated area, as described in the facility operating plan, within one week after it is received. Sort and segregate all HHW, except HHW that will be distributed for use, by U.S. department of transportation hazard class or division;

(B) except for HHW that will be distributed for use, mark each HHW storage container or each segregated HHW storage area according to U.S. department of transportation hazard class or division;

(C) keep all storage containers that are in direct contact with HHW closed, except when adding or removing waste;

(D) when HHW is present, inspect all HHW storage areas weekly to assess waste volume and container integrity, and document these inspections in a log that is dated and either signed or initialed by the person who conducted the inspection; and

(E) store HHW that will be distributed for use in a manufacturer's original container. Each container that will be distributed for use shall be labeled, closed, and nonleaking.

(2) Each HHW facility operator shall distribute for use, recycling, or disposal all HHW accepted by the facility according to all of the following requirements:

(A) HHW may be distributed for use in a manner equivalent to its originally intended purpose.

(B) All HHW that is transferred for treatment, storage, or disposal shall be transferred to a permitted hazardous waste treatment, storage, or disposal facility by a registered hazardous waste transporter.

(C) All HHW that is transferred for treatment, storage, or disposal shall be manifested as hazardous waste as described in K.A.R. 28-31-4 (d), with the following changes:

(i) For the purposes of paragraph (b)(2)(C) of this regulation, "Kansas or EPA generator" shall be replaced with "HHW facility operator," and "hazardous waste" shall be replaced with "HHW" in K.A.R. 28-31-4 (d).

(ii) All applicable hazardous waste codes for each waste shall be listed on the manifest, using all available information. HHW facilities shall not be required to submit samples for laboratory testing in order to determine hazardous waste codes.

(D) All HHW that is transferred for treatment, storage, or disposal shall be subject to the hazard-

ous waste land disposal requirements specified in K.A.R. 28-31-14.

(E) All HHW that is transferred for treatment, storage, or disposal shall be prepared for transportation off-site as specified in K.A.R. 28-31-4 (e). For the purposes of this paragraph, "Kansas or EPA generator" shall be replaced with "HHW facility operator," and "hazardous waste" shall be replaced with "HHW" in K.A.R. 28-31-4 (e).

(F) The requirements of paragraphs (b)(2)(B) through (b)(2)(E) of this regulation shall not apply to the following wastes:

(i) HHW that is transferred to a universal waste facility and packaged and labeled in accordance with K.A.R. 28-31-15;

(ii) antifreeze that is transferred to a commercial collector under the conditions of an agreement to recycle the antifreeze;

(iii) HHW that is disposed of in the sanitary sewer connected to a publicly owned treatment works with written authorization from the operators of the publicly owned treatment works. HHW shall not be discharged to storm sewers or septic systems;

(iv) containers that have been emptied to the fullest practical extent and are disposed of in a permitted municipal solid waste landfill;

(v) HHW that is transferred between HHW facilities; and

(vi) other waste, as approved by the department.

(c) Storage. Each HHW facility operator shall maintain the quantity of stored material at or below the facility's permitted storage capacity.

(d) Signs. Each HHW facility operator shall post a sign outside of the facility that includes the following information:

(1) The name of the facility;

(2) the hours and days of operation;

(3) the name of the permit holder;

(4) the telephone number of an emergency contact available during nonoperating hours; and

(5) the permit number.

(e) Training. All HHW facility managers, employees, and volunteers that are responsible for sorting, segregating, or processing HHW shall receive a minimum of 24 hours of classroom training related to the proper handling of hazardous materials and shall receive a minimum of eight hours of annual refresher training. Education or experience may be substituted for the required training, subject to departmental approval. No person shall sort, segregate, or process HHW without on-

site supervision before receiving this training. (Authorized by and implementing K.S.A. 1999 Supp. 65-3406 and 65-3460; effective June 16, 2000.)

28-29-1103. Mobile HHW collection units. Each permitted facility that transports HHW from a temporary collection site or from a satellite HHW facility to a permitted HHW facility shall perform the following:

- (a) Clearly mark "Household hazardous waste" on both sides of the mobile collection unit;
- (b) separate all HHW by USDOT hazard class or division before transport;
- (c) lab pack or overpack the household waste in containers meeting the USDOT manufacturing and testing specifications for transportation of hazardous materials, as adopted by reference in K.A.R. 28-31-4 (e);
- (d) label the containers with a USDOT hazard class or division label or sign;
- (e) seal and secure all containers for transport; and
- (f) during transportation, carry a bill of lading describing the USDOT hazard class or division and the approximate quantities of the contents of the mobile collection unit. (Authorized by and implementing K.S.A. 1999 Supp. 65-3406 and 65-3460; effective June 16, 2000.)

28-29-1104. Satellite HHW facilities.

(a) "Satellite HHW facility" shall mean any permanent HHW collection site, located away from the central collection center, that is part of a permitted HHW program.

(b) Each person who owns or operates a satellite HHW facility shall meet all of the following requirements:

(1) The HHW satellite facility shall be described in the approved operating plan of the permitted HHW facility or facilities with which the satellite HHW facility is associated.

(2) The owner or operator of the satellite HHW facility shall submit an operating plan, a facility drawing, and a description of any HHW storage cabinets to the department.

(3) A copy of each bill of lading used for transporting HHW to the central collection center shall be maintained at the satellite HHW facility for a period of three years.

(c) Each person who owns or operates a satellite HHW facility using storage cabinets shall meet all of the following requirements:

(1) A minimum of two and a maximum of four

HHW storage cabinets, including at least one for flammables and one for corrosives, shall be used at each satellite HHW facility.

(2) Each HHW storage cabinet shall be designed for the HHW stored in it.

(3) Each HHW storage cabinet shall have a storage capacity of not more than 120 gallons.

(4) All HHW shall be properly segregated and stored within the appropriate storage cabinets by the end of the working day.

(5) If HHW is present, the facility owner or operator shall inspect all HHW storage areas weekly to assess waste volume and container integrity, and shall document these inspections in a log that is dated and either signed or initialed by the person who conducted the inspection.

(6) Not more than one week after the storage capacity has been reached, the owner or operator shall make arrangements to remove the HHW stored in HHW storage cabinets. HHW stored in HHW storage cabinets shall be removed at least once a year. (Authorized by and implementing K.S.A. 1999 Supp. 65-3406 and 65-3460; effective June 16, 2000.)

28-29-1105. HHW reporting and recordkeeping. (a) The owner or operator of each HHW facility shall submit an annual report to the department on a form furnished by the department.

(b) The owner or operator of each HHW facility shall maintain a copy of the approved design plan, closure plan, and all modifications to the plans, at the facility or at another location designated in the facility operating plan, until the facility closes.

(c) The owner or operator of each HHW facility shall maintain at the facility a copy of the approved operating plan and all modifications to the plan, until the facility closes.

(d) The owner or operator of each HHW facility shall maintain the following records at the facility or at another location designated in the facility operating plan, for at least three years:

- (1) Copies of the annual report;
- (2) training records;
- (3) bills of lading;
- (4) hazardous waste manifests;
- (5) land disposal restriction notifications;
- (6) weekly inspection records; and
- (7) notification of changes to approved design, operations, and closure plans. (Authorized by and

implementing K.S.A. 1999 Supp. 65-3406 and 65-3460; effective June 16, 2000.)

28-29-1106. HHW facility closure. The owner or operator of each HHW facility shall meet the following requirements:

(a) Notify the department at least 60 days before beginning closure;

(b) remove all household waste within 90 days after last receiving waste; and

(c) submit to the department certification that the facility has closed in accordance with the specifications in the approved closure plan. (Authorized by and implementing K.S.A. 1999 Supp. 65-3406 and 65-3460; effective June 16, 2000.)

28-29-1107. HHW permits. (a) Each person that plans to establish an HHW facility shall submit a permit application to the department on a form supplied by the department. The applicant shall include with the permit application the following items:

(1) Facility design plan. The facility design plan shall include all of the following information:

(A) The type, size, and location of the facility;

(B) a regional plan or a map showing the service area;

(C) a vicinity plan or map that depicts the following features and information:

(i) Residences, wells, surface waters, and access roads within 0.5 mile of the site boundaries, and any other existing or proposed man-made or natural features relating to the project;

(ii) adjacent zoning and land use; and

(iii) evidence that the facility will not be located within the 100-year floodplain;

(D) a topographic map showing elevation contours;

(E) a site plan depicting the following features:

(i) On-site and off-site utilities, including electricity, gas, and water;

(ii) storm and sanitary sewer systems;

(iii) right-of-ways; and

(iv) the location of buildings and appurtenances, fences, gates, roads, paved lots, parking areas, drainage, culverts, and signs; and

(F) detailed plans depicting the following features:

(i) Building elevation and plan view;

(ii) building floor plans, shelving plans, appurtenances, and necessary detail sections to include electrical and mechanical systems;

(iii) designated areas for activities to be conducted at the facility, including receipt, segregation,

bulking, distribution, packaging, and storage of household waste; and

(iv) entrance area gates, fencing, and signs.

(2) Operating plan. The operating plan shall contain the following information:

(A) The activities to be conducted at the facility, including receipt, segregation, bulking, packaging, storage, and distribution of household waste;

(B) the activities to be conducted off-site, including operation of mobile collection units, curbside collection, and satellite storage facilities;

(C) the procedures for handling ignitable or reactive waste;

(D) the procedures for identifying and managing small quantity generator waste;

(E) the duties and responsibilities of facility personnel;

(F) the training program and requirements for the different types of facility personnel; and

(G) the emergency response plan for events including spills, fires, equipment failure, power outages, natural disasters, receipt of prohibited materials, and other similar interruptions of normal activities.

(3) Closure plan. The closure plan shall contain the following information:

(A) The procedure for removing and disposing of waste at closure;

(B) the procedure for cleaning the facility;

(C) the schedule for closure; and

(D) the closure cost estimate on a form supplied by the department.

(b) Modifications to plans. The owner or operator shall notify the department, in writing, of all modifications to the approved plans before the implementation of modifications. Modifications submitted to the department shall be effective 28 calendar days after the date the modification notice is received by the department, unless the department notifies the owner or operator that the modification will require further review before it can be approved. Changes to approved plans shall not conflict with any provision of K.A.R. 28-29-1100 through K.A.R. 28-29-1107. (Authorized by and implementing K.S.A. 1999 Supp. 65-3406 and 65-3460; effective June 16, 2000.)

28-29-2011. Waste tire permit fees. For each permit required in K.S.A. 65-3424b and amendments thereto, the applicant or permittee shall pay the applicable fee according to the following schedules.

- (a) Permit application fees.
 - Mobile waste tire processor\$250
 - Waste tire collection center\$100
 - Waste tire processing facility\$250
 - Waste tire transporter\$100
 - (b) Annual permit renewal fees.
 - Mobile waste tire processor\$100
 - Waste tire collection center\$50
 - Waste tire processing facility\$100
 - Waste tire transporter\$50
- (Authorized by K.S.A. 65-3424h; implementing K.S.A. 2006 Supp. 65-3424b; effective Oct. 26, 2007.)

PART 10.—FINANCIAL REQUIREMENTS

28-29-2101. Financial assurance for closure and postclosure. In K.A.R. 28-29-2101 through K.A.R. 28-29-2113, “facility” shall mean a solid waste disposal area, a solid waste processing facility, or both.

(a) Evidence of financial assurance. The owner or operator of each facility shall submit to the department evidence of financial assurance for the facility for the cost of closure, postclosure, or both, as specified in K.S.A. 65-3407, and amendments thereto. The financial assurance shall meet the following requirements:

- (1) Be continuous during the active life of the facility and the required postclosure care period;
- (2) be in an amount that is equal to or greater than the accepted or revised amount as specified in subsection (e) of this regulation;

- (3) be available when needed; and
- (4) be legally enforceable.

(b) Financial assurance methods.

(1) Allowable financial assurance methods shall consist of the following:

(A) A funded trust fund, as specified in K.A.R. 28-29-2103;

(B) a surety bond guaranteeing payment, as specified in K.A.R. 28-29-2104;

(C) a surety bond guaranteeing performance, as specified in K.A.R. 28-29-2105;

(D) an irrevocable letter of credit, as specified in K.A.R. 28-29-2106;

(E) an insurance policy, as specified in K.A.R. 28-29-2107;

(F) a corporate financial test, as specified in K.A.R. 28-29-2108;

(G) a corporate financial guarantee, as specified in K.A.R. 28-29-2109;

(H) a local government financial test, as specified in K.A.R. 28-29-2110;

(I) a local government guarantee, as specified in K.A.R. 28-29-2111;

(J) use of ad valorem taxing authority for a local government subdivision of the state that owns or operates a solid waste facility other than a municipal solid waste landfill, as specified in K.A.R. 28-29-2112; and

(K) the following simplified financial instruments, as specified in K.A.R. 28-29-2113:

(i) A simplified permit bond for facilities with a closure cost estimate of \$100,000 or less;

(ii) a simplified irrevocable letter of credit for facilities with a closure cost estimate of \$100,000 or less; and

(iii) an assigned certificate of deposit for facilities with a closure cost estimate of \$25,000 or less.

(2) Any owner or operator may use a combination of instruments or methods as specified in these regulations, except that a method using a financial instrument guaranteeing performance shall not be used in combination with an instrument guaranteeing payment. Each method used in combination shall satisfy the requirements specified in these financial assurance regulations for its use.

(3) Any board of county commissioners that has established a dedicated fee fund pursuant to K.S.A. 65-3415f, and amendments thereto, may reduce the amount of financial assurance demonstrated by any other allowable method by the current balance accumulated in the dedicated fee fund at the time that the evidence of financial assurance is submitted.

(4) If the financial assurance is a purchased financial instrument, it shall be purchased from a financial, insurance, or surety institution meeting the quality and reliability standards suitable to institutions of that type and the standards specified in these financial assurance regulations.

(c) Calculation of financial assurance. The owner or operator of each facility shall meet the following requirements when calculating the amount of financial assurance for the current estimated cost to provide for closure, postclosure, or both.

(1) The owner or operator shall meet the following requirements to determine the area or capacity to be included in the calculation of estimated cost.

(A) For each solid waste processing facility, the amount of closure financial assurance shall be calculated as the cost of removing and disposing of the greatest volume of waste allowed by terms and

conditions of the permit, and all other costs relevant to certification of final closure, including certification.

(B) For each solid waste disposal area, the amount of closure financial assurance shall be calculated as the cost to complete final closure of the largest area to lack final cover at any one time before the next annual permit renewal. The calculated cost shall include the cost to complete all closure activities in a manner consistent with the approved facility closure plan.

(C) For each solid waste disposal area, the amount of postclosure financial assurance shall be calculated as the cost to be incurred for the largest area to have waste in place before the next annual permit renewal. The calculated cost shall include the cost to conduct the following, in a manner consistent with the approved facility postclosure plan, during the postclosure period of 30 years and any extensions of the postclosure period required by the secretary:

(i) Care and maintenance of the area, including all appurtenances; and

(ii) all required environmental monitoring.

(2) The owner or operator shall calculate the amount of financial assurance required by applying third-party costs to the activities listed in the closure plan and postclosure plan. The resulting amount shall not be discounted, nor shall any offset for the sale of recoverable materials be subtracted. Third-party costs shall be determined from one or more of the following sources:

(A) Representative costs supplied by the department;

(B) actual invoices paid by the owner or operator for the same or similar work;

(C) written bids from professional contractors having no other financial interest in the facility or its use; or

(D) authoritative costing tables issued by publishers recognized for their research into the costs of the activities to be priced.

(3) If the calculated amount does not include a specific allowance to pay for contingent events, the owner or operator shall add an amount equal to 10% of the total cost for the purpose of determining the amount of financial assurance required.

(4) The owner or operator shall submit the cost estimates on worksheets provided by the department or on other forms that contain the same information.

(d) When submissions are required. The owner

or operator of each facility shall submit evidence of financial assurance to the department at the following times:

(1) Before the facility permit is issued by the secretary, including transferred permits;

(2) before a permit modification is issued by the secretary;

(3) annually during the active life of the facility, on or before the permit renewal date; and

(4) annually during the required period of postclosure, on or before the permit renewal date that was effective during the active life of the facility.

(e) Evaluation of amount of financial assurance.

(1) Upon receipt of the closure cost estimate, postclosure cost estimate, or both, from the owner or operator, the estimate or estimates shall be evaluated by the department to determine if the estimated amount of financial assurance is acceptable, according to the following criteria:

(A) The activities planned meet the requirements of the Kansas solid waste statutes and regulations, comply with all permit conditions, and are protective of public health and safety and the environment; and

(B) the method of estimating costs for the planned activities meets the requirements of this regulation.

(2) Revisions shall be made by the department in accordance with the evaluation, if the cost estimate factors are not acceptable.

(f) Annual updates to financial assurance. The owner or operator shall update the financial assurance amount, on or before the annual renewal date of each permit during the active life of the facility and annually during the required period of postclosure care, by recalculating the cost of closure, postclosure care, or both, using current dollars, or by the addition of an inflation factor to the amount accepted by the department for the prior year.

(1) If a change to any of the following has occurred that will change the cost of closure, postclosure, or both, the owner or operator shall recalculate the affected cost or costs, consistent with the change:

(A) The closure plan, as submitted or as approved;

(B) the postclosure plan, as submitted or as approved; or

(C) the conditions at the facility.

(2) If the inflation factor is used, the financial assurance instrument or other method of demonstrating financial assurance shall be adjusted to

the updated amount according to the following formula:

$$\frac{IPD_y}{IPD_{y-1}} \times FA_{y-1} = FA$$

where:

IPD_y represents the current annual implicit price deflator for the gross domestic product;

IPD_{y-1} represents the previous year's implicit price deflator for the gross domestic product;

FA_{y-1} represents the previous year's approved estimate of closure or postclosure, or both; and

FA represents the current estimated cost of closure or postclosure, or both.

(g) Failure of the financial assurance method, or an inadequate amount of financial assurance. Each owner or operator of a facility who obtains information that a financial assurance instrument or other method has failed to meet the standards established by these financial assurance regulations for its use, or that the amount of financial assurance provided has become inadequate for reasons other than general annual price inflation, shall provide alternate or increased financial assurance of the type and within the time periods specified in these financial assurance regulations, but not later than 90 days after obtaining the information.

(h) Release from the requirement to provide financial assurance. Each owner or operator shall be released from the requirement to provide financial assurance for a facility for closure or postclosure care, or both, when the owner or operator is released by the department from further obligation to perform closure activities, postclosure activities, or both, at the facility.

(i) Exception for certain closed municipal solid waste landfills. The financial assurance requirements of subsection (a) of this regulation shall not apply to closed municipal solid waste landfills that are exempted from K.A.R. 28-29-101 through K.A.R. 28-29-120 according to the closure dates specified in K.A.R. 28-29-100.

(j) Exception to the requirement for postclosure financial assurance for facilities other than municipal solid waste landfills. Postclosure financial assurance shall not be required by the secretary for a facility that is not a municipal solid waste landfill unless the secretary determines that recurring environmental monitoring is required during the entire postclosure period.

(k) Exception to the closure plan pricing requirements for waste tire permittees. No waste

tire processing facility, waste tire collection center, mobile waste tire processor, or waste tire transporter permittee shall be subject to the closure plan pricing requirements of subsections (c) and (f) of this regulation. The permittee shall determine the amount of financial assurance according to the following criteria:

(1) Waste tire processing facilities and waste tire collection centers. The amount of financial assurance shall correspond to the closure cost estimate, as specified in K.A.R. 28-29-30.

(2) Mobile waste tire processors. The amount of financial assurance shall be \$1,000.00.

(3) Waste tire transporters. The amount of financial assurance shall correspond to the average number of passenger tire equivalents (PTEs) transported per month, according to the following schedule:

PTEs transported	Financial assurance
0 through 1,000	\$1,000.00
1,001 through 10,000	\$5,000.00
more than 10,000	\$10,000.00

(Authorized by K.S.A. 65-3406 and 65-3424h; implementing K.S.A. 2006 Supp. 65-3407 and K.S.A. 2006 Supp. 65-3424b; effective Feb. 24, 2000; amended Oct. 26, 2007.)

28-29-2102. Financial assurance for corrective action. Reference to the "facility" in these financial assurance regulations shall mean a solid waste disposal area or a solid waste processing facility, or both.

(a) Requirement to provide financial assurance. Each owner or operator of a facility who is required to undertake a corrective action program pursuant to the provisions of K.A.R. 28-29-114, or by order of any court of competent jurisdiction, shall provide evidence of financial responsibility for the cost of corrective action in the manner and form prescribed by these financial assurance regulations. Each owner or operator required to perform corrective action for a facility shall provide and maintain financial assurance that is continuous, adequate in amount, available when needed, and legally enforceable.

(b) Financial assurance methods. Allowable financial assurance methods shall be those specified in K.A.R. 28-29-2101(b).

(c) Provider of the financial assurance. The financial assurance for corrective action shall be supplied by one of the providers specified in K.A.R. 28-29-2101(c).

(d) Demonstration of financial assurance, when

required. Each owner or operator required to undertake a program of corrective action shall provide a demonstration of financial assurance to the department at the following times:

(1) Within 120 days following whichever of the following dates is earliest:

(A) The date that the selected remedy was filed with the department by the owner or operator according to the provisions of K.A.R. 28-29-114(b); or

(B) the date that the secretary informed the facility of the amount of financial assurance required based on a probable remedial cost estimate; and

(2) annually during the corrective action period, on or before the anniversary of the date the first financial assurance demonstration was required.

(e) Review of financial assurance demonstrations. Financial assurance demonstrations shall be reviewed by the department and either approved or disapproved. A financial assurance method that has been disapproved by the department shall be replaced with an alternate method as specified in these financial assurance regulations to maintain continuous assurance during the corrective action period. A purchased financial instrument that has been disapproved because of wording or the quality of the issuing institution, or for any other reason, shall be replaced by an instrument acceptable to the department or by another method listed in K.A.R. 28-29-2101(b)(1), to maintain continuous assurance.

(f) Calculation of required financial assurance.

(1) The financial assurance requirement shall be based upon the total cost accumulated in a detailed estimate of the cost of the corrective action plan for implementing the remedy approved or specified by the department according to K.A.R. 28-29-114(b).

(2) A probable remedial cost estimate for the financial assurance required to implement corrective measures at the facility may be developed by the secretary before a remedy is submitted by the facility and approved by the department.

(3) If a trust fund is selected to provide the financial assurance, a separate estimate shall be made of the cost to be incurred during each year of the corrective action plan.

(4) The corrective action plan shall be priced using one or more of the sources specified in K.A.R. 28-29-2101(f)(2).

(5) The total amount of the corrective action plan shall not be discounted, nor shall any offset

for the sale of recoverable materials be subtracted.

(6) If the amount does not include a specific allowance to pay for contingent events, an amount equal to 10 percent of the total cost shall be added for the purpose of determining the amount of financial assurance required.

(g) Evaluation of amount of financial assurance. Upon receipt of a priced corrective action plan from the owner or operator, the plan shall be evaluated by the department to determine if the amounts calculated are sufficient for determining the amount of financial assurance required, or revisions shall be made by the department in accordance with the evaluation if the amounts are not sufficient. The adequacy of the physical actions planned and the pricing sources shall be considered in the departmental evaluation. Each owner or operator shall demonstrate financial assurance equal to the amount accepted or determined by the department.

(h) Annual updates to financial assurance. Each owner or operator shall update the financial assurance amount on or before the anniversary of the date the first financial assurance demonstration was required by this regulation. The financial assurance amount shall be updated by using one or more of the methods specified in K.A.R. 28-29-2101(h).

(i) Failure of the financial assurance method, or an inadequate amount of financial assurance. Each owner or operator required to process a corrective action plan who obtains information that a financial assurance instrument or other method in use has failed to meet the standards established by these financial assurance regulations for its use, or that the amount of financial assurance provided has become inadequate for reasons other than general annual price inflation, shall provide alternate or increased financial assurance of the type and within the time periods specified in these financial assurance regulations, but in no event later than 90 days after obtaining the information.

(j) Release from the requirement to provide financial assurance. Each owner or operator required to provide financial assurance for corrective action shall be released from the requirement when the department or any court having jurisdiction releases the owner or operator from further obligation to perform corrective action activities at the facility.

(k) The provisions of this regulation shall apply on and after February 24, 2000. (Authorized by

K.S.A. 1998 Supp. 65-3406; implementing K.S.A. 1998 Supp. 65-3407, as amended by L. 1999, Ch. 112, Sec. 1; effective Feb. 24, 2000.)

28-29-2103. Financial assurance provided by a funded trust fund. (a) Funded trust fund. Any owner or operator of a solid waste disposal area or processing facility may satisfy the requirements of K.A.R. 28-29-2101 or K.A.R. 28-29-2102, or both, by establishing a trust fund that conforms to the requirements of this regulation and by submitting a copy of the trust agreement, with an original signature, to the department.

(1) Each owner or operator of a new facility shall submit to the department a copy of the trust agreement, with an original signature, for closure or postclosure, or both, before the permit is issued by the department.

(2) Each owner or operator required to provide financial assurance for a corrective action plan shall submit to the department a copy of the trust agreement, with an original signature, within the times specified in K.A.R. 28-29-2102(d).

(3) The trustee financial institution shall meet the following criteria:

- (A) Be unrelated to the owner or operator;
- (B) have the authority to act as trustee for the facility in the state of Kansas; and
- (C) be a trust operation regulated and examined by a state or federal agency.

(b) Form of the trust agreement.

(1) The wording of the trust agreement shall be identical to the wording in the document provided by the department.

(2) The trust agreement shall establish a trust account, referred to in this regulation as "the fund," for the receipt of annual payments into the fund and receipt of the earnings on the accumulated amount.

(3) Each owner or operator shall update schedule A of the trust agreement within 60 days following a change in the amount of the current closure, postclosure, or corrective action cost estimate covered by the agreement.

(c) Payments into the fund for closure and postclosure. The owner or operator shall annually make payments into the fund for closure or postclosure, or both, over the estimated life of the facility as approved by the department. The approved facility life shall be referred to in this regulation as the "pay-in period." The pay-in period shall be changed each time a new facility life is determined by the owner or operator and ap-

proved by the department. The pay-in period shall not exceed 30 years from the date a new facility is permitted or the date these financial assurance regulations become effective, whichever is later. Payments into the fund for closure or postclosure, or both, shall be calculated as follows:

(1) The first payment into the fund for a new facility shall be made before the permit is issued by the department. The first payment shall be equal to the current, approved estimate of closure or postclosure costs, or both, divided by the number of years in the pay-in period.

(2) The owner or operator shall make subsequent payments on or before the due date for each annual permit renewal. The amount of each subsequent payment shall be calculated by the following formula:

$$\frac{CE - CV}{Y} = P$$

where:

CE represents the current cost estimate for closure or postclosure, or both;

CV represents the current value of the fund. The current value of the fund shall be the current tax cost of the fund as reported in the trustee report unless market value is lower, in which case the lower value shall be used in the formula;

Y represents the number of years remaining in the pay-in period; and

P represents the amount of the required payment.

(3) Any owner or operator may accelerate payments into the fund or may deposit the full amount of the current estimate for closure or postclosure costs, or both, at the time the fund is established. After making the accelerated or full payments, the owner or operator shall maintain the fund at least in the amount it would have been if initial and annual payments had been made according to the requirements in paragraphs (c)(1) and (c)(2) of this regulation.

(4) If the owner or operator establishes a trust fund for closure, postclosure, or both, after having used another allowable method of providing financial assurance, the first payment into the fund shall be at least the amount that the fund would have contained if the trust fund had been used as the first method.

(5) After the pay-in period is complete, whenever the current approved cost estimate for closure or postclosure, or both, is changed, the owner or operator shall compare the new estimate with

the trustee's most recent report of the current value of the fund and, if the fund is deficient, shall deposit the amount of deficiency on or before the date required by K.A.R. 28-29-2101(i).

(6) After the pay-in period is complete, if the value of the fund exceeds the current approved estimate of closure or postclosure costs, or both, or if the owner or operator substitutes another approved method of providing financial assurance, the owner or operator may submit a request to the department for return of the excess amount. The request shall be evaluated by the department. The requested amount shall be approved, changed, or denied. The trustee shall make payment from the fund in the amount determined by the department's evaluation.

(d) Reimbursement from the closure or postclosure fund. After beginning final closure, and annually during the postclosure period, the owner or operator or another authorized person may request reimbursement for the costs incurred in carrying out the actions required by the approved closure or postclosure plan, or both. The reimbursement request shall include documentation for the costs to be reimbursed from the fund. The request shall be evaluated by the department. Reimbursement may be authorized by the department to the extent that, after the reimbursement is issued by the trustee, the fund still contains the amount required to complete closure or postclosure, or both. The trustee shall make payment from the fund in the amount determined by the department's evaluation.

(e) Payments into the fund for corrective action. Each owner or operator shall make payments into the fund for corrective action annually during the first half of the approved corrective action period. The first half of the corrective action period shall be the "pay-in period." The pay-in period shall be changed at any time that a new corrective action period is determined by the owner or operator and approved by the department. The pay-in period shall not exceed seven years beginning on the date these financial assurance regulations become effective, or 120 days after the date determined by K.A.R. 28-29-2102(d), whichever is later. Payments into the fund for corrective action shall be calculated as follows:

(1) The first payment into the fund shall be at least in the amount of half of the approved estimate of the total cost of corrective action for the entire corrective action period, divided by the number of years in the pay-in period.

(2) The amount of each subsequent payment shall be determined by the following formula:

$$\frac{RB - CV}{Y} = P$$

where:

RB represents the required balance, defined as the total amount of corrective action cost estimated to be incurred in the last half of the corrective action period;

CV represents the current value of the trust fund. The current value of the fund shall be the current tax cost of the fund as reported in the trustee report unless market value is lower, in which case market value shall be used in the formula;

Y represents the number of years remaining in the pay-in period; and

P represents the amount of the required payment.

(3) Any owner or operator may accelerate payments into the fund or may deposit the full amount of the required balance at the time the fund is established. After making the accelerated or full payments, the owner or operator shall maintain the fund at least in the amount it would have been if initial and annual payments had been made according to the requirements in paragraphs (e)(1) and (e)(2) of this regulation.

(4) If the owner or operator establishes a corrective action trust fund after having used another allowable method of providing financial assurance, the first payment into the fund shall be at least the amount that the fund would have contained if the trust fund had been used as the first method.

(5) After the pay-in period is complete, whenever the current estimated cost of corrective action for the remaining corrective action period exceeds the amount of the current value of the fund, the owner or operator shall deposit the deficiency on or before the deadline specified in K.A.R. 28-29-2102 (i).

(f) Reimbursement from the corrective action fund. After the pay-in period is complete or after the required balance of the fund is reached, the owner or operator or another authorized person may request reimbursement for the costs incurred in carrying out the actions required by the corrective action plan. The reimbursement request shall include documentation of the costs to be reimbursed from the fund. The request shall be evaluated by the department. Reimbursement

may be authorized by the department to the extent that, after the reimbursement is issued by the trustee, the fund still contains the amount required to complete the corrective action plan. The trustee shall make payment from the fund in the amount determined by the department's evaluation.

(g) Termination of the trust agreement. Any owner or operator may request termination of the trust agreement and return of any monies remaining in the fund if any of the following conditions is met:

(1) The owner or operator substitutes an alternative method of financial assurance as specified in K.A.R. 28-29-2101(b) and obtains written approval for its use from the department.

(2) The owner or operator is released by the department from further obligation to provide financial assurance for closure, postclosure, corrective action, or any combination of these, at the permitted facility.

(3) The owner or operator completes corrective action required by order of any court of competent jurisdiction and is released from further obligation by the court at the permitted facility.

(h) The provisions of this regulation shall apply on and after February 24, 2000. (Authorized by K.S.A. 1998 Supp. 65-3406; implementing K.S.A. 1998 Supp. 65-3407, as amended by L. 1999, Ch. 112, Sec. 1; effective Feb. 24, 2000.)

28-29-2104. Financial assurance provided by a surety bond guaranteeing payment.

(a) Financial guarantee bond. Any owner or operator of a permitted solid waste disposal area or processing facility may satisfy the requirements of K.A.R. 28-29-2101 or K.A.R. 28-29-2102, or both, by obtaining a financial guarantee bond that conforms to the requirements of this regulation and by submitting the original bond to the department.

(1) Each owner or operator of a new facility shall submit to the department the bond for closure or postclosure, or both, before the permit is issued by the department.

(2) Each owner or operator required to provide financial assurance for a corrective action plan shall submit the bond to the department within the times specified in K.A.R. 28-29-2102(d).

(3) The surety institution shall meet the following criteria:

(A) Be unrelated to the owner or operator;

(B) have the authority to issue surety bonds in Kansas; and

(C) be listed as an acceptable surety institution on federal bonds.

(b) Form of the financial guarantee bond. The wording of the financial guarantee bond shall be identical to the wording in the document provided by the department. If the penal sum of the bond is increased during the life of the bond, the owner or operator shall provide written acceptance of the new amount, indicated by a signed acceptance placed on the certificate of increase issued by the surety institution. The original signed and accepted certificate of increase shall be filed with the department.

(c) Standby trust fund. Each owner or operator who uses a financial guarantee bond to satisfy the requirements of K.A.R. 28-29-2101 or K.A.R. 28-29-2102, or both, shall also establish a standby trust fund. A copy of the standby trust agreement with an original signature shall be submitted to the department along with the original financial guarantee bond. Under the terms of the bond, all payments from the penal sum shall be deposited by the surety institution directly into the standby trust fund, in accordance with instructions from the department. The standby trust fund shall conform to the requirements specified in K.A.R. 28-29-2103, except that, until the trust account is funded pursuant to the requirements of this regulation, the following shall not be required:

(1) Payments into the fund as specified in K.A.R. 28-29-2103(c) or (e);

(2) updates to schedule A of the trust agreement as specified in K.A.R. 28-29-2103(b)(3);

(3) annual valuations as required by the trust agreement; and

(4) notices of nonpayment as required by the trust agreement.

(d) Provisions of the financial guarantee bond for closure and postclosure. The financial guarantee bond for closure or postclosure, or both, shall require that the owner or operator perform one of the following:

(1) Fund the standby trust fund in the amount of the penal sum of the bond before beginning final closure of the facility;

(2) fund the standby trust fund in the amount of the penal sum of the bond within 15 days after an administrative order issued by the department to begin closure becomes final, or within 15 days after an order to begin final closure is issued by any court of competent jurisdiction; or

(3) provide alternate financial assurance as specified in these financial assurance regulations and obtain the department's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the department of a notice of cancellation from the surety institution.

(e) Provisions of the financial guarantee bond for corrective action. A financial guarantee bond for corrective action shall require that the owner or operator perform one of the following:

(1) Fund the standby trust fund in the amount of the penal sum of the bond before beginning corrective action at the facility;

(2) fund the standby trust fund in the amount of the penal sum of the bond within 15 days after an administrative order issued by the department to begin corrective action becomes final, or within 15 days after an order to begin corrective action is issued by any court of competent jurisdiction; or

(3) provide alternate financial assurance as specified in these financial assurance regulations and obtain the department's written approval for the assurance provided, within 90 days after receipt by both the owner or operator and the department of a notice of cancellation from the surety institution.

(f) Liability of the surety institution. Under terms of the bond, the surety institution shall become liable on the bond obligation if the owner or operator fails to perform as guaranteed by the bond.

(g) Penal sum of the bond. The penal sum of the bond for closure, postclosure, or both, shall be at least the amount of the current cost estimate for closure, postclosure, or both. The penal sum of the bond for corrective action shall be at least the amount of the current cost estimate for corrective action for the entire corrective action period.

(h) Increase in the penal sum of the bond. Whenever the current cost of closure, postclosure, corrective action, or any combination of these, increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, shall either cause the penal sum to be increased to the new amount and submit evidence of the increase to the department, or obtain other financial assurance as specified in these financial assurance regulations to cover the increase. Whenever the current cost of closure, postclosure, or corrective action, or any combination of these,

decreases, the owner or operator may request approval from the department to decrease the penal sum of the bond. The request shall be evaluated by the department, and the amount shall be decreased consistent with the department's evaluation.

(i) Cancellation of the bond by the surety institution. Under terms of the bond, the surety institution may cancel the bond by sending notice of cancellation by certified mail to both the owner or operator and the department. Cancellation shall not occur, however, during the 120 days following the date by which the notice of cancellation has been received by both the owner or operator and the department, as evidenced by the return receipts.

(j) Cancellation of the bond by the owner or operator. The owner or operator may request cancellation of the bond from the department if any of the following occurs:

(1) The owner or operator substitutes an alternative method of financial assurance as specified in K.A.R. 28-29-2101(b) and obtains written approval for its use from the department.

(2) The owner or operator is released by the department from further obligation for closure or postclosure, or both, at the facility.

(3) The owner or operator completes required corrective action and is released from further obligation by the department or any court of competent jurisdiction.

(k) The provisions of this regulation shall apply on and after February 24, 2000. (Authorized by K.S.A. 1998 Supp. 65-3406; implementing K.S.A. 1998 Supp. 65-3407, as amended by L. 1999, Ch. 112, Sec. 1; effective Feb. 24, 2000.)

28-29-2105. Financial assurance provided by a surety bond guaranteeing performance.

(a) Performance guarantee bond. Any owner or operator of a permitted solid waste disposal area or processing facility may satisfy the requirements of K.A.R. 28-29-2101 or K.A.R. 28-29-2102, or both, by obtaining a performance guarantee bond that conforms to the requirements of this regulation and by submitting the original bond to the department.

(1) Each owner or operator of a new facility shall submit to the department the bond for closure or postclosure, or both, before the permit is issued by the department.

(2) Each owner or operator required to provide financial assurance for a corrective action plan

shall submit the bond to the department within the times specified in K.A.R. 28-29-2102(d).

(3) The surety institution shall meet the following criteria:

(A) Be unrelated to the owner or operator;

(B) have the authority to issue surety bonds in Kansas; and

(C) be listed as an acceptable surety institution on federal bonds.

(b) Form of the performance guarantee bond. The wording of the performance guarantee bond shall be identical to the wording in the document provided by the department. If the penal sum of the bond is increased during the life of the bond, the owner or operator shall provide written acceptance of the new amount, indicated by a signed acceptance placed on the certificate of increase issued by the surety institution. The original signed and accepted certificate of increase shall be filed with the department.

(c) Standby trust fund. Any owner or operator who uses a performance guarantee bond to satisfy the requirements of K.A.R. 28-29-2101 or K.A.R. 28-29-2102, or both, shall also establish a standby trust fund. A copy of the standby trust agreement with an original signature shall be submitted to the department along with the original performance guarantee bond. Under the terms of the bond, all payments from the penal sum shall be deposited by the surety institution directly into the standby trust fund, in accordance with instructions from the department. The standby trust fund shall conform to the requirements specified in K.A.R. 28-29-2103, except that, until the trust account is funded pursuant to the requirement of this regulation, the following shall not be required:

(1) Payments into the fund as specified in K.A.R. 28-29-2103 (c) or (e);

(2) updates to schedule A of the trust agreement as specified in K.A.R. 28-29-2103 (b)(3);

(3) annual valuations as required by the trust agreement; and

(4) notices of nonpayment as required by the trust agreement.

(d) Provisions of the performance guarantee bond for closure and postclosure. The performance guarantee bond for closure or postclosure, or both, shall require that the owner or operator perform either of the following:

(1) Perform final closure or postclosure, or both, in accordance with the closure or postclosure plan, or both, and any other requirements of

the permit and the department or a court of competent jurisdiction whenever required to do so; or

(2) provide alternate financial assurance as specified in these financial assurance regulations and obtain the department's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the department have received a notice of cancellation from the surety institution.

(e) Provisions of the performance guarantee bond for corrective action. A performance guarantee bond for corrective action shall require that the owner or operator perform either of the following:

(1) Perform corrective action according to the corrective action plan or according to an order from the department or any court of competent jurisdiction whenever required to do so; or

(2) provide alternate financial assurance as specified in these financial assurance regulations and obtain the department's written approval for the assurance provided, within 90 days after the date by which both the owner or operator and the department have received a notice of cancellation from the surety institution.

(f) Liability of the surety institution. Under terms of the bond, the surety institution shall become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

(g) Penal sum of the bond. The penal sum of the bond for closure, postclosure, or both, shall be at least the amount of the current cost estimate for closure or postclosure, or both. The penal sum of the bond for corrective action shall be at least the amount of the current cost estimate for corrective action for the entire corrective period.

(h) Increase in the penal sum of the bond. Whenever the current cost of closure, postclosure, corrective action, or any combination of these, increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, shall either cause the penal sum to be increased to the new amount and submit evidence of the increase to the department, or obtain other financial assurance as specified in K.A.R. 28-29-2101(b) to cover the increase. Whenever the current cost of closure, postclosure, corrective action, or any combination of these, decreases, the owner or operator may request approval from the department to decrease the penal sum of the bond. The request shall be evaluated by the department,

and the amount shall be decreased consistent with the department's evaluation.

(i) Cancellation of the bond by the surety institution. Under terms of the bond, the surety institution may cancel the bond by sending notice of cancellation by certified mail to both the owner or operator and the department. Cancellation shall not occur, however, during the 120 days following the date by which the notice of cancellation has been received by both the owner or operator and the department, as evidenced by the return receipts.

(j) Cancellation of the bond by the owner or operator. The owner or operator may request cancellation of the bond from the department if any of the following occurs:

(1) The owner or operator substitutes an alternative method of financial assurance as specified in K.A.R. 28-29-2101(b) and obtains written approval for its use from the department.

(2) The owner or operator is released by the department from further obligation for closure or postclosure, or both, at the facility.

(3) The owner or operator completes required corrective action and is released from further obligation by the department or any court of competent jurisdiction.

(k) The provisions of this regulation shall apply on and after February 24, 2000. (Authorized by K.S.A. 1998 Supp. 65-3406; implementing K.S.A. 1998 Supp. 65-3407, as amended by L. 1999, Ch. 112, Sec. 1; effective Feb. 24, 2000.)

28-29-2106. Financial assurance provided by an irrevocable letter of credit. (a) Letter of credit. Any owner or operator of a permitted solid waste disposal area or processing facility may satisfy the requirements of K.A.R. 28-29-2101 or K.A.R. 28-29-2102, or both, by obtaining a letter of credit that conforms to the requirements of this regulation and by submitting the original letter of credit to the department.

(1) Each owner or operator of a new facility shall submit to the department the letter of credit before the permit is issued by the department.

(2) Each owner or operator required to provide financial assurance for a corrective action plan shall submit the letter of credit to the department within the times specified in K.A.R. 28-29-2102(d).

(3) The institution issuing the letter of credit shall meet the following criteria:

(A) Be unrelated to the owner or operator;

(B) be authorized to issue letters of credit in Kansas; and

(C) conduct letter of credit activities that are regulated by an agency of the state or federal government.

(b) Form of the letter of credit. The wording of the letter of credit shall be identical to the wording in the document provided by the department. If the amount of the letter of credit is changed or the expiration date is extended, an original amendment to the letter of credit shall be filed with the department.

(c) Standby trust fund. Any owner or operator who uses a letter of credit to satisfy the requirements of K.A.R. 28-29-2101 or K.A.R. 28-29-2102, or both, shall also establish a standby trust fund. A copy of the standby trust agreement with an original signature shall be submitted to the department along with the original letter of credit. Under the terms of the letter of credit, all payments from the penal sum shall be deposited by the issuing institution directly into the standby trust fund, in accordance with instructions from the department. The standby trust fund shall conform to the requirements specified in K.A.R. 28-29-2103, except that, until the trust account is funded pursuant to the requirements of this regulation, the following shall not be required:

(1) Payments into the fund as specified in K.A.R. 28-29-2103 (c) or (e);

(2) updates to schedule A of the trust agreement as specified in K.A.R. 28-29-2103(b)(3);

(3) annual valuations as required by the trust agreement; and

(4) notices of nonpayment as required by the trust agreement.

(d) Provisions of the letter of credit. The letter of credit shall be irrevocable and shall be issued for a period of at least one year. The letter of credit shall require that the expiration date be automatically extended for a period of at least one year on the expiration date and on each succeeding expiration date, unless 120 days before the current expiration date the issuing institution notifies both the owner or operator and the department by certified mail of a decision not to extend the expiration date. Under terms of the letter of credit, the 120-day period shall begin on the date by which both the owner or operator and the department have received the notice, as evidenced by the return receipts.

(e) Amount of the letter of credit. The letter of credit for closure, postclosure, or both, shall be

issued for at least the amount of the current cost of closure or postclosure, or both, whichever is greater. The letter of credit for corrective action shall be issued for at least the amount of the current cost estimate for corrective action during the entire corrective action period.

(f) Increases in the amount of the letter of credit. Whenever the current cost of closure, postclosure, corrective action, or any combination of these, increases to an amount greater than the amount of the letter of credit, the owner or operator, within 60 days after the increase, shall either cause the amount of the letter of credit to be increased to the new amount and submit evidence of the increase to the department, or obtain other financial assurance as specified in K.A.R. 28-29-2101(b) to cover the increase. Whenever the current cost of closure, postclosure, corrective action, or any combination of these, decreases, the owner or operator may request approval from the department to decrease the amount of the letter of credit. The request shall be evaluated by the department, and the amount shall be decreased consistent with the department's evaluation.

(g) Failure to perform closure, postclosure, and corrective action. The amount of the letter of credit, in whole or in part, shall be drawn by the department following a determination by the department of either of the following:

(1) That the owner or operator has failed to perform closure, postclosure, or corrective action, or any combination of these, in accordance with the closure, postclosure, or corrective action plan, or any combination of these, when required; or

(2) that the owner or operator has failed to perform according to the terms and conditions of the permit.

(h) Failure to supply alternate financial assurance. If the owner or operator does not establish alternate financial assurance as specified by this regulation and does not obtain written approval for its use from the department within 90 days after the date by which both the owner or operator and the department have received a notice from the issuing institution that it has decided not to renew the letter of credit beyond the current expiration date, the amount of the letter of credit may be drawn by the department.

(i) Termination of the letter of credit by the owner or operator. The owner or operator may request termination of the letter of credit if any of the following occurs:

(1) The owner or operator substitutes an alter-

native method of financial assurance as specified in K.A.R. 28-29-2101(b) and obtains written approval for its use from the department.

(2) The owner or operator is released by the department from further obligation for closure or postclosure, or both, at the facility.

(3) The owner or operator completes required corrective action and is released from further obligation by the department or any court of competent jurisdiction.

(j) The provisions of this regulation shall apply on and after February 24, 2000. (Authorized by K.S.A. 1998 Supp. 65-3406; implementing K.S.A. 1998 Supp. 65-3407, as amended by L. 1999, Ch. 112, Sec. 1; effective Feb. 24, 2000.)

28-29-2107. Financial assurance provided by insurance.

(a) Insurance policy. Any owner or operator of a permitted solid waste disposal area or processing facility may satisfy the requirements of K.A.R. 28-29-2101 or K.A.R. 28-29-2102, or both, by obtaining an insurance policy that conforms to the requirements of this regulation and by submitting to the department a copy of the insurance policy with an original signature, including all riders and endorsements, and an insurance certificate.

(1) The owner or operator of a new facility shall submit the insurance policy, riders, endorsements, and certificate to the department before the permit is issued by the department.

(2) Each owner or operator required to provide financial assurance for a corrective action plan shall submit the insurance policy, riders, endorsements, and certificate to the department within the times specified in K.A.R. 28-29-2102 (d).

(3) The insuring institution shall meet the following criteria:

(A) Be unrelated to the owner or operator;

(B) be licensed to transact the business of insurance by an agency of a state; and

(C) be listed as a surplus or excess lines carrier in Kansas.

(b) Form of the insurance certificate. The wording of the insurance certificate shall be identical to the wording in the document provided by the department.

(c) Amount of insurance. The insurance policy shall be issued for a face amount at least equal to the current cost estimate for closure or postclosure, or both, or at least in the amount of the current cost estimate for corrective action for the entire corrective action period, exclusive of legal

defense costs. The term "face amount" shall mean the total amount the insurer is obligated to pay under the policy. Actual payments under the policy by the insurer shall not change the face amount, although the future liability of the insurer shall be lowered by the amount of the payments.

(d) Provisions of the insurance policy. An insurance policy issued for closure, postclosure, corrective action, or a combination of these, shall guarantee that funds are available to pay for the actions required by the closure plan, postclosure plan, corrective action plan, or any combination of these, whenever required. The policy shall also guarantee that once final closure, postclosure, corrective action, or any combination of these, begins, the insurer will be obligated to disburse funds up to the face amount of the policy, at the direction of the department. The insurer shall not exercise discretion to determine whether the expenses incurred for closure, postclosure, corrective action, or any combination of these, are ordinary, necessary, or prudent, if disbursement is required by the department.

(e) Reimbursement of expenditures. After closure, postclosure, or corrective action, or any combination of these, has begun, an owner or operator or any other authorized person may request reimbursement of expenditures by submitting itemized statements with documentation to the department. The itemized statements shall be evaluated by the department. The expenditures listed shall be approved or disapproved by the department. After evaluating the itemized statements, payment from the insurer for approved expenditures may be authorized by the department if the remaining face amount of the insurance policy is sufficient to cover any remaining costs of closure, postclosure, corrective action, or any combination of these. If the department believes that future costs of closure, postclosure, corrective action, or any combination of these, will exceed the remaining face amount of the policy, authorization for payment may be withheld by the department.

(f) Requirement to maintain the insurance policy in force. The owner or operator shall maintain the insurance policy for closure, postclosure, corrective action, or any combination of these, in force until the department consents, in writing, to its termination. Failure to pay the premium when due, without substitution of alternate financial assurance as specified by K.A.R. 28-29-2101(b), shall constitute a violation of these regulations.

The owner or operator shall be in violation if the department receives notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than on the date the policy is actually terminated.

(g) Assignment of the insurance to successive owners or operators. Each policy of insurance shall contain a provision allowing assignment of the policy to a successor owner or operator. This assignment may be conditional upon consent of the insurer, which shall not be unreasonably withheld.

(h) Cancellation of the insurance by the insurer. The policy of insurance for closure, postclosure, corrective action, or any combination of these, shall stipulate that the insurer not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy shall, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to both the owner or operator and the department. The cancellation, termination, or failure to renew shall not occur during the 120 days beginning with the date by which both the owner or operator and the department have received notice, as evidenced by the return receipts. Cancellation, termination, or failure to renew shall not occur, and the policy shall remain in full force and effect if, on or before the date of expiration, one or more of the following events occur:

(1) The department determines the facility has been abandoned.

(2) The facility permit is terminated or revoked by the department, or a new permit is denied.

(3) The commencement of closure, postclosure, or corrective action, or any combination of these, activities is required by the department or any court of competent jurisdiction.

(4) The owner or operator is named as a debtor in a voluntary or involuntary proceeding under any state or federal bankruptcy law.

(5) The owner or operator fails to provide alternative financial assurance in a form and amount acceptable to the department.

(6) The premium due is paid.

(i) Increased cost estimates. During the active life of the facility, whenever the current cost estimate of closure, postclosure, corrective action, or of any combination of these, increases to an

amount greater than the face amount of the insurance policy, the owner or operator, within 60 days after the increase, shall either cause the face amount of the policy to be increased to an amount at least equal to the current cost estimate of closure, postclosure, corrective action, or any combination of these, and submit evidence of the increase to the department, or shall obtain other financial assurance as specified in K.A.R. 28-29-2101(b) to cover the increase. Whenever the estimated cost of closure, postclosure, corrective action, or any combination of these, decreases, the owner or operator may request approval from the department to decrease the face amount of the policy. The request shall be evaluated by the department, and a decrease in the amount shall be allowed by the department, consistent with its evaluation.

(j) Annual adjustments to the face amount of the policy. Beginning on the date that liability to make payments pursuant to a policy for postclosure begins, the insurer shall annually increase the face amount of the policy. This increase shall be based on the face amount of the policy, less any payments made exclusive of legal defense costs, multiplied by an amount equivalent to 85 percent of the most recent investment rate or 85 percent of the equivalent coupon-issue yield rate announced by the U.S. department of the treasury for 26-week treasury securities.

(k) Termination of the insurance by the owner or operator. The owner or operator may request cancellation of the insurance policy from the department if either of the following occurs:

(1) The owner or operator substitutes an alternative method of financial assurance as specified in K.A.R. 28-29-2101(b) and obtains written approval for its use from the department.

(2) The owner or operator is released by the department or any court of competent jurisdiction from further obligation for closure, postclosure, corrective action, or any combination of these, at the facility.

(l) The provisions of this regulation shall apply on and after February 24, 2000. (Authorized by K.S.A. 1998 Supp. 65-3406; implementing K.S.A. 1998 Supp. 65-3407, as amended by L. 1999, Ch. 112, Sec. 1; effective Feb. 24, 2000.)

28-29-2108. Financial assurance provided by the corporate financial test. (a) Corporate financial test. Any corporate owner or operator of a permitted solid waste disposal area or

processing facility may satisfy the requirements of K.A.R. 28-29-2101 or K.A.R. 28-29-2102, or both, by passing a financial test based on the current financial condition of the permitted corporation as specified in this regulation. Related corporations may not be summed or otherwise combined for the purpose of the financial test, but majority-owned subsidiary corporations of the permitted corporation may be consolidated.

(b) The financial component.

(1) The owner or operator shall satisfy one of the following three conditions:

(A) A current rating for its senior unsubordinated debt of AAA, AA, A, or BBB, as issued by Standard & Poor's, or Aaa, Aa, A, or Baa, as issued by Moody's;

(B) a ratio of less than 1.5, obtained by dividing total liabilities by net worth; or

(C) a ratio of greater than 0.10, obtained by dividing the sum of net income plus depreciation, depletion, and amortization, minus \$10 million, by total liabilities.

(2) The tangible net worth of the owner or operator shall be greater than either of the following:

(A) The sum of current closure, postclosure, and corrective action cost estimates and any other environmental obligations, including guarantees, covered by the financial test plus \$10 million; or

(B) \$10 million in net worth plus the amount of any guarantees that have not been recognized as liabilities in the financial statements, if all of the current closure, postclosure, and corrective action costs and any other environmental obligations covered by the financial test are recognized as liabilities in the owner's or operator's audited annual financial statements.

(3) The owner or operator shall have assets located in the United States amounting to at least the sum of current closure, postclosure, and corrective action cost estimates and any other environmental obligations or guarantees covered by the financial test as described in subsection (d) of this regulation.

(c) Record keeping and reporting requirements.

(1) The owner or operator shall place a copy of the following items in the facility's operating record and file the originals with the department:

(A) A letter signed by the owner's or operator's chief financial officer that is identical to the form provided by the department and that meets the following criteria:

(i) Lists all the current cost estimates for clo-

sure, postclosure, and corrective action and any other environmental obligations or guarantees covered by any financial test under state or federal laws and regulations in any jurisdiction; and

(ii) provides evidence demonstrating that the permitted corporate entity meets the requirements of the financial component of subsection (b) of this regulation;

(B) a copy of the permitted corporate entity's most recent corporate annual financial statements containing a report of independent certified public accountants, including an unqualified opinion. An adverse opinion, disclaimer of opinion, or qualified opinion shall be cause for the department to disapprove use of the corporate financial test. A qualified opinion may be evaluated by the department. Use of the financial test may be approved or disapproved by the department based on its evaluation;

(C) a special report of independent certified public accountants based on applying agreed-upon procedures engaged in accordance with professional auditing standards and stating the following:

(i) The accountant has compared the data in the chief financial officer's letter that is specified as coming from the most recent year-end audited financial statements to the audited financial statements; and

(ii) in connection with this procedure, the accountant found the data to be in agreement; and

(D) if the chief financial officer's letter provides a demonstration that the permitted corporate entity has assured environmental obligations in the manner provided in paragraph (b)(2)(B) of this regulation, a special report of independent certified public accountants that meets the following criteria:

(i) Provides verification that all of the environmental obligations covered by the financial test have been recognized as liabilities in the most recent annual financial statements;

(ii) describes the methods used to measure and report on these obligations; and

(iii) provides verification that the tangible net worth of the permitted corporate entity is at least \$10 million plus the amount of any guarantees provided.

(2) After the initial placement of the items listed in paragraph (c)(1) of this regulation in the facility operating record and the initial filing of the originals with the department, the owner or operator shall annually update the information in the

operating record and file the updated originals with the department. The updated information shall be placed in the operating record and filed with the department within 90 days following the close of the owner's or operator's most recently completed fiscal year.

(3) The owner or operator shall no longer be required to submit the items specified in paragraph (c)(1) of this regulation or otherwise comply with the requirements of this regulation if any of the following occurs:

(A) The owner or operator substitutes an alternative method of financial assurance as specified in K.A.R. 28-29-2101(b) and obtains written approval for its use from the department.

(B) The owner or operator is released by the department from further obligation for closure, or postclosure, or both, at the facility.

(C) The owner or operator completes required corrective action and is released from further obligation by the department or any court of competent jurisdiction.

(4) If the owner or operator determines that the permitted corporate entity no longer meets the requirements of subsection (b) of this regulation, the owner or operator shall, within 120 days following the owner's or operator's most recent fiscal year end, obtain alternate financial assurance as specified in K.A.R. 28-29-2101(b) and obtain approval from the department for its use.

(5) Based on the department's reasonable belief that the owner or operator may no longer meet the requirements of subsection (b) of this regulation, the owner or operator may be required by the department at any time to provide reports of its financial condition, including or in addition to current financial test documentation as specified in subsection (c) of this regulation, for evaluation. If the department evaluation results in a determination that the owner or operator no longer meets the requirements to use the financial test, the owner or operator shall provide alternate financial assurance as specified in K.A.R. 28-29-2101(b).

(d) Calculation of costs to be assured. Each owner or operator using the corporate financial test to provide financial assurance for closure, postclosure, and corrective action shall combine the current cost estimates for the permitted facility with all other environmental obligations or guarantees also assured by any financial test in any local, state, federal, or foreign jurisdiction. The combined environmental cost shall then be used

in the financial test calculations provided to the department by the owner or operator. The environmental obligations of consolidated subsidiary corporations that are assured by the financial test shall also be included in the combined environmental obligations covered by the test.

(e) The provisions of this regulation shall apply on and after February 24, 2000. (Authorized by K.S.A. 1998 Supp. 65-3406; implementing K.S.A. 1998 Supp. 65-3407, as amended by L. 1999, Ch. 112, Sec. 1; effective Feb. 24, 2000.)

28-29-2109. Financial assurance provided by the corporate guarantee. (a) Corporate guarantee. Any owner or operator of a permitted solid waste disposal area or processing facility may meet the requirements of K.A.R. 28-29-2101 or K.A.R. 28-29-2102, or both, by obtaining a written guarantee for closure, postclosure, or corrective action costs, or any combination of these as specified in this regulation.

(1) The guarantor shall comply with the following:

(A) The requirements for owners or operators using the corporate financial test as specified in K.A.R. 28-29-2108(b);

(B) the record keeping and reporting requirements in K.A.R. 28-29-2108(c); and

(C) the terms of the guarantee.

(2) The guarantor shall be one of the following:

(A) The direct or higher-tier parent corporation of the owner or operator; or

(B) a corporation having the same parent corporation as the owner or operator.

(b) Form of the corporate guarantee. The guarantor shall provide a written guarantee that is worded identically to the document provided by the department.

(c) Effective date of the guarantee. A guarantee of closure, postclosure, or both, for a new permit shall be in force before the permit is issued by the department. A guarantee for corrective action shall be in force within the times specified in K.A.R. 28-29-2102 (d).

(d) Record keeping and reporting requirements. Copies of the guarantee, with original signatures, shall be placed in the facility operating record of the owner or operator and filed with the department, accompanied by the documents specified for use by the owner or operator in K.A.R. 28-29-2108(c), that shall be completed using the financial information and reports of the

guarantor corporation. These documents shall be updated and filed annually.

(e) Consideration for the guarantee. If the guarantor's parent corporation is also the parent corporation of the owner or operator, the letter from the guarantor's chief financial officer shall describe the value received in consideration for the guarantee.

(f) Provisions of the guarantee. The terms of the written guarantee shall specify the following remedies:

(1) If the owner or operator fails to perform closure, postclosure, corrective action, or any combination of these, for the permitted facility covered by the guarantee when required by the department or any court of competent jurisdiction, the guarantor shall perform either of the following remedies:

(A) Perform or pay a third party to perform closure, postclosure, corrective action, or any combination of these, as required by the department or any court of competent jurisdiction; or

(B) establish a fully funded trust fund as specified in K.A.R. 28-29-2103, in the name of the owner or operator, in the amount of the current cost estimate for closure, postclosure, corrective action, or any combination of these, whichever is greatest.

(2) The guarantee shall remain in effect unless the guarantor sends prior notice of cancellation by certified mail to both the owner or operator and the department. Cancellation shall not occur, however, during the 120 days beginning on the date by which both the owner or operator and the department have received the notice of cancellation, as evidenced by the return receipts.

(3) If the guarantee is canceled, the owner or operator shall, within 90 days following the date by which both the owner or operator and the department have received the cancellation notice, obtain alternate financial assurance as specified in K.A.R. 28-29-2101(b) and obtain the approval of the department for its use. If the owner or operator fails to provide alternate financial assurance within the 90-day period, the guarantor shall provide the alternate financial assurance in the name of the owner or operator within 120 days following the date by which both the department and the owner or operator have received the cancellation notice.

(g) Failure of the guarantee. If the corporate guarantor no longer meets the requirements of K.A.R. 28-29-2108(b), the owner or operator

shall, within 90 days, obtain alternate financial assurance and obtain the approval of the department for its use. If the owner or operator fails to provide alternate financial assurance as specified in K.A.R. 28-29-2101(b) within the 90-day period, the guarantor shall, within the next 30 days, provide the alternate financial assurance in the name of the owner or operator.

(h) Release of the guarantee. The owner or operator shall be no longer required to meet the requirements of this regulation if any of the following occurs:

(1) The owner or operator substitutes an alternative method of financial assurance as specified in K.A.R. 28-29-2101(b) and obtains written approval for its use from the department.

(2) The owner or operator is released by the department from further obligation for closure, postclosure, or both, at the permitted facility.

(3) The owner or operator completes required corrective action and is released from further obligation by the department or any court of competent jurisdiction.

(i) The provisions of this regulation shall apply on and after February 24, 2000. (Authorized by K.S.A. 1998 Supp. 65-3406; implementing K.S.A. 1998 Supp. 65-3407, as amended by L. 1999, Ch. 112, Sec. 1; effective Feb. 24, 2000.)

28-29-2110. Financial assurance provided by the local government financial test.

(a) Local government financial test. Each owner or operator of a permitted solid waste disposal area or processing facility that is a local government subdivision of the state of Kansas may satisfy the requirements of K.A.R. 28-29-2101 or K.A.R. 28-29-2102, or both, for the closure, postclosure, or corrective action costs, or any combination of these, for a municipal solid waste landfill by use of a local government financial test as specified in this regulation.

(b) Definitions. The following terms used in this regulation shall be defined as specified below:

(1) "Annual debt service" means the principal and interest due on outstanding long-term debt during a stated time period, typically the current fiscal year, and payments on capital lease obligations during the same period.

(2) "Cash plus marketable securities" means all the cash and marketable securities held by the local government on the last day of a fiscal year but shall exclude the following:

(i) Cash and marketable securities designated to satisfy past obligations; and

(ii) cash and investments held in fiduciary funds.

(3) "Current year" means the most recently completed fiscal year.

(4) "Deficit" means total annual revenues minus total annual expenditures.

(5) "Long-term debt issued in the current year" means the amount of principal borrowing actually received during the current year from the issue of obligations due more than one year from the date of issue but shall exclude the following:

(i) The amount of capital lease liability incurred during the year; and

(ii) the proceeds of any long-term borrowing in the current year that remains in the capital projects fund at year's end.

(6) "Nonroutine capital expenditures" means capital expenditures of the capital projects fund and expenditures identified as capital outlays or asset additions in the audited annual financial statements of other governmental funds and enterprise funds.

(7) "Total annual expenditures" means the total of all expenditures but shall exclude the following:

(i) Debt principal repayments;

(ii) nonroutine capital expenditures; and

(iii) the expenditures of fiduciary or other trust funds managed by a local government on behalf of specific third parties.

(8) "Total annual revenues" means revenues from all taxes, fees, investment earnings, and intergovernmental transfers but shall exclude the following:

(i) The proceeds from borrowing and asset sales; and

(ii) revenues of fiduciary or other trust funds managed by a local government on behalf of specific third parties.

(c) The financial component.

(1) If the owner or operator has outstanding general obligation bonds that are not secured by insurance, a letter of credit, or other collateral or guarantee, the bonds shall have a current bond rating of AAA, AA, A, or BBB, as issued by Standard & Poor's, or a current rating of Aaa, Aa, A, or Baa, as issued by Moody's.

(2) If the owner or operator does not have outstanding and rated general obligation bonds, the owner or operator shall meet each of the following financial ratios based on the owner's or operator's most recent audited annual financial statements:

(A) A ratio of cash plus marketable securities divided by total annual expenditures equal to or greater than 0.05, referred to as the “liquidity ratio”;

(B) a ratio of annual debt service divided by total annual expenditures equal to or less than 0.20, referred to as the “debt service ratio”; and

(C) a ratio of long-term debt issued in the current year divided by nonroutine capital expenditures of the current year equal to or less than 2.00, referred to as the “use of funds ratio.”

(3) The owner or operator’s annual financial statements shall be audited by an independent certified public accountant. The financial statements shall be prepared in conformity with one of the following accounting methods:

(A) Generally accepted accounting principles for governments; or

(B) a prescribed basis of accounting that demonstrates compliance with the cash basis and budget laws of the state of Kansas.

(4) An owner or operator who prepares the annual financial statements in conformity with generally accepted accounting principles for governments and uses the financial ratio test method of financial assurance may omit the ratio test stated in paragraph (c)(2)(C) of this regulation.

(5) A local government owner or operator shall not be eligible to use the financial test to assure closure, postclosure, corrective action, or any combination of these, for a municipal solid waste landfill if any of the following conditions exists:

(A) The owner or operator is currently in default on any outstanding general obligation bonds.

(B) The owner or operator has any general obligation bonds outstanding that are rated lower than BBB, as issued by Standard & Poor’s, or Baa, as issued by Moody’s.

(C) The owner or operator operated at a deficit equal to or greater than five percent of the total annual revenue in each of the two most recently completed fiscal years.

(D) The owner or operator receives an adverse opinion, disclaimer of opinion, or qualification of opinion in the report of independent certified public accountants accompanying the audited financial statements for the most recently completed fiscal year. A qualified opinion may be evaluated by the department. Use of the financial test may be approved or disapproved by the department based on its evaluation.

(d) Public notice component. The local government owner or operator shall place a reference to

the cost of closure, postclosure, corrective action, or any combination of these, that is assured by the local government financial test in its comprehensive annual financial report or other audited annual financial report during each year in which the owner or operator is required to provide financial assurance by these financial assurance regulations. Disclosure shall be made in a note attached to the audited annual financial statements and shall include the following:

(1) The nature and source of the requirements to conduct closure, postclosure, corrective action, or any combination of these;

(2) the liability reported or calculated at the balance sheet date;

(3) the estimated total cost of closure, postclosure, corrective action, or any combination of these, remaining to be recognized following the reported balance sheet date;

(4) the percentage of landfill capacity on the reported balance sheet date;

(5) the estimated remaining landfill life in years, or the estimated period of corrective action remaining; and

(6) the method projected for use or the method currently in use to fund the actual costs of closure, postclosure, corrective action, or any combination of these, when required.

(e) Record keeping and reporting requirements.

(1) The owner or operator shall place a copy of the following items in the facility’s operating record and shall file the originals with the department:

(A) A letter signed by the local government’s chief financial officer that is identical to the form provided by the department and that includes the following:

(i) A list of all the current cost estimates covered by a financial test, including the municipal solid waste landfill and any other environmental obligations or guarantees assured by financial test in any jurisdiction;

(ii) a certification that the local government meets the conditions of subsection (c) of this regulation required for use of either the bond rating or the financial ratio method of the local government financial test;

(iii) a certification that the local government has satisfied the public notice component requirements of subsection (d) of this regulation; and

(iv) a certification that the local government has not exceeded the amount eligible to be assured by

the financial test according to subsection (f) of this regulation;

(B) a copy of the local government's audited comprehensive annual financial report or other audited annual financial report for the latest completed fiscal year, including the report and opinion of the auditor, who shall be an independent certified public accountant; and

(C) a special report of independent certified public accountants that is based on applying agreed-upon procedures engaged in accordance with professional auditing standards and that identifies the procedures performed and states that the independent accountant has determined all of the following:

(i) The data used to calculate the financial test ratios in paragraphs (c)(2)(A), (c)(2)(B), and (c)(2)(C) of this regulation were derived from the audited annual financial statements for the most recently completed fiscal year, and the ratios calculated from this data equal or exceed the stated requirements.

(ii) The owner or operator satisfies the requirements of paragraphs (c)(5)(C) and (f)(1) of this regulation.

(iii) The annual financial report has been prepared on a basis of accounting required by paragraph (c)(3) of this regulation and is accompanied by an auditor's opinion satisfying the requirements of paragraph (c)(5)(D) of this regulation.

(2) The items required by paragraph (e)(1) of this regulation shall be placed in the facility operating record to fulfill the requirements of K.A.R. 28-29-108(q)(1)(G) and shall be filed with the department no later than the effective date for a new permit, and also annually before the end of the latest allowable day for filing the annual audited financial report with the Kansas department of administration, director of accounts and reports, without extension, according to the provisions of K.S.A. 75-1124, and amendments thereto.

(3) The local government owner or operator shall satisfy the requirements of the local government financial test at the close of each fiscal year. If the local government no longer meets the requirements of the financial test, it shall obtain alternate financial assurance as specified in K.A.R. 28-29-2101(b) within 90 days of discovering the failure or within 210 days following the close of the most recently completed fiscal year, whichever first occurs, and shall obtain approval from the department for its use.

(4) The local government owner or operator shall no longer be required to submit the items specified in paragraph (e)(1) of this regulation or otherwise comply with the requirements of this regulation if either of the following conditions occurs:

(A) The local government substitutes an alternate method or instrument of financial assurance as specified in K.A.R. 28-29-2101(b) and obtains the department's approval for its use.

(B) The local government is released by the department from further obligation for closure, postclosure, corrective action, or any combination of these, at the permitted facility.

(5) Additional reports of financial condition may be required by the department from the local government at any time for evaluation. If the department evaluation results in a determination that the local government no longer meets the requirements of the local government financial test, the local government shall provide alternate financial assurance as specified in K.A.R. 28-29-2101(b) within 90 days following notice to the local government from the department.

(f) Calculation of costs to be assured.

(1) The portion of closure, postclosure, and corrective action costs that an owner or operator may assure by the local government financial test shall be determined as follows:

(A) If the local government owner or operator does not assure other environmental obligations or guarantees by the financial test, it may assure closure, postclosure, and corrective action costs for the permitted facility up to an amount equaling 43 percent of total annual revenues.

(B) If the local government owner or operator assures other environmental obligations or guarantees in any jurisdiction by the financial test in addition to the closure, postclosure, and corrective action costs of the permitted facility, it shall add the current cost estimates of the additional obligations or guarantees to the closure, postclosure, and corrective action costs of the permitted facility, and the combined environmental obligations assured shall not exceed 43 percent of total annual revenues.

(2) The local government owner or operator shall provide alternate financial assurance as specified in K.A.R. 28-29-2101(b) for any environmental obligations or guarantees in excess of 43 percent of total annual revenues.

(g) The provisions of this regulation shall apply on and after February 24, 2000. (Authorized by

K.S.A. 1998 Supp. 65-3406; implementing K.S.A. 1998 Supp. 65-3407, as amended by L. 1999, Ch. 112, Sec. 1; effective Feb. 24, 2000.)

28-29-2111. Financial assurance provided by a local government guarantee. (a) Local government guarantee. Each owner or operator of a municipal solid waste landfill may satisfy the requirements of K.A.R. 28-29-2101 or K.A.R. 28-29-2102, or both, by obtaining a written guarantee for closure, postclosure, or corrective action costs, or any combination of these, that is provided by a local government subdivision of the state of Kansas as specified in this regulation. The guarantor shall comply with the following:

(1) The requirements of the financial component for use of the local government financial test as specified in K.A.R. 28-29-2110(b);

(2) the public notice requirements of K.A.R. 28-29-2110(c);

(3) the record keeping and reporting requirements of K.A.R. 28-29-2110(d); and

(4) the terms of the guarantee.

(b) Form of the local government guarantee. The guarantor shall provide a written guarantee that is worded identically to the document provided by the department.

(c) Effective date of the guarantee. A guarantee of closure or postclosure, or both, for a new permit shall be in force before the permit is issued by the department. A guarantee for corrective action shall be in force within the times specified in K.A.R. 28-29-2102 (d).

(d) Record keeping and reporting requirements. Copies of the guarantee, with original signatures, shall be placed in the facility operating record of the owner or operator and filed with the department, with the documents specified for use by the owner or operator in K.A.R. 28-29-2110(d). The documentation shall be completed using the financial information and reports of the guarantor. These documents shall be updated and filed annually.

(e) Provisions of the guarantee. The terms of the guarantee shall stipulate the following:

(1) If the owner or operator fails to perform closure, postclosure, corrective action, or any combination of these, for the permitted facility covered by the guarantee when required to do so by the department or a court of competent jurisdiction, the guarantor shall perform either of the following:

(A) Perform or pay a third-party to perform clo-

sure, postclosure, corrective action, or any combination of these, as required by the department or any court of competent jurisdiction; or

(B) establish a fully funded trust fund as specified in K.A.R. 28-29-2103, in the name of the owner or operator, in the amount of the current cost estimate for closure, postclosure, corrective action, or any combination of these, whichever is greatest.

(2) The guarantee shall remain in effect unless the guarantor sends notice of cancellation by certified mail to both the owner or operator and the department. Cancellation shall not occur, however, during the 120 days beginning on the date by which both the owner or operator and the department have received the notice of cancellation, as evidenced by the return receipts.

(3) If the guarantee is canceled, the owner or operator shall, within 90 days following the date by which both the owner or operator and the department have received the cancellation notice, obtain alternate financial assurance as specified in K.A.R. 28-29-2101(b) and obtain approval from the department. If the owner or operator fails to provide alternate financial assurance within the 90-day period, the guarantor shall provide the alternate financial assurance in the name of the owner or operator within the next 30 days.

(f) Failure of the guarantee. If the local government guarantor no longer meets the requirements of K.A.R. 28-29-2110(b), the owner or operator shall, within 90 days, obtain alternate financial assurance as specified in K.A.R. 28-29-2101(b) and obtain approval from the department for its use. If the owner or operator fails to provide the alternate financial assurance within the 90-day period, the guarantor shall, within the next 30 days, provide the alternate financial assurance in the name of the owner or operator.

(g) Release of the guarantee. The owner or operator shall no longer be required to meet the requirements of this regulation if any of the following occurs:

(1) The owner or operator substitutes an alternative method of financial assurance as specified in K.A.R. 28-29-2101(b) and obtains written approval for its use from the department.

(2) The owner or operator is released by the department from further obligation for closure, postclosure, or both, at the permitted facility.

(3) The owner or operator completes the required corrective action and is released from fur-

ther obligation by the department or any court of competent jurisdiction.

(h) The provisions of this regulation shall apply on and after February 24, 2000. (Authorized by K.S.A. 1998 Supp. 65-3406; implementing K.S.A. 1998 Supp. 65-3407, as amended by L. 1999, Ch. 112, Sec. 1; effective Feb. 24, 2000.)

28-29-2112. Financial assurance provided by use of ad valorem taxing authority.

(a) Ad valorem taxing authority. Any owner or operator that is a local government subdivision of the state of Kansas and that is permitted to own or operate a solid waste disposal area or processing facility other than a municipal solid waste landfill may use its statutory authority to assess and collect ad valorem taxes to assure the closure, postclosure, or corrective action costs, or any combination of these, of the facility as required by K.A.R. 28-29-2101 or K.A.R. 28-29-2102, or both.

(b) Proof of ad valorem taxing authority. Whenever required to do so by the department, the local government owner or operator shall perform one of the following:

(1) Provide evidence of currently unused ad valorem taxing authority within any statutory tax limit or cap;

(2) provide analyses demonstrating that the cost of closure, postclosure, corrective action, or any combination of these, will be provided by ad valorem tax assessments within any statutory limit or cap in future budgets at the time that closure, postclosure, corrective action, or any combination of these, is required; or

(3) provide evidence demonstrating the existence and amount of a governmental or enterprise fund containing monies designated for use in providing closure, postclosure, corrective action, or any combination of these, for the permitted facility.

(c) The provisions of this regulation shall apply on and after February 24, 2000. (Authorized by K.S.A. 1998 Supp. 65-3406; implementing K.S.A. 1998 Supp. 65-3407, as amended by L. 1999, Ch. 112, Sec. 1; effective Feb. 24, 2000.)

28-29-2113. Financial assurance provided by a simplified financial instrument. (a) Simplified financial instrument.

(1) Any owner or operator of a permitted solid waste disposal area or processing facility with a current closure cost estimate equal to or less than \$100,000, and with financial assurance from a single provider for that facility, may provide financial

assurance in a simplified form of surety bond or letter of credit, instead of by use of any other financial instrument specified in K.A.R. 28-29-2101(b). The owner or operator of the facility may, with the department's approval, use an assigned certificate of deposit or assigned escrow account to provide financial assurance if the facility closure cost estimate is \$25,000 or less.

(2) The simplified forms of financial instruments specified in this regulation shall not be used to provide financial assurance for the estimated cost of postclosure or corrective action.

(b) Form of the simplified financial instrument. The wording of the simplified surety bond or letter of credit shall be identical to the wording in the documents provided by the department.

(c) When a simplified financial instrument shall not be used. Whenever the estimate of closure cost exceeds \$100,000 for any facility for which one of the simplified financial instruments specified in subsection (a) is in use, or whenever requested by the department, the owner or operator shall substitute, for that facility, one or more alternative methods of financial assurance as specified in K.A.R. 28-29-2101(b).

(d) The provisions of this regulation shall apply on and after February 24, 2000. (Authorized by K.S.A. 1998 Supp. 65-3406; implementing K.S.A. 1998 Supp. 65-340, as amended by L. 1999, Ch. 112, Sec. 1; effective Feb. 24, 2000.)

28-29-2201. Insurance for solid waste disposal areas and processing facilities.

Except as provided in subsection (d), each owner or operator of a permitted solid waste disposal area or processing facility shall secure and maintain liability insurance for claims arising from injuries to other parties, including bodily injury and property damage. (a) Amount of liability coverage.

(1) The permit application shall be reviewed by the department to determine the amount of insurance coverage that the owner or operator shall secure and maintain for each disposal area or processing facility, based on the types of waste disposed and on the location, area, and geological characteristics of the site.

(2) Each owner or operator shall maintain insurance that shall provide coverage, including completed operations coverage, in the amount determined by the department but with commercial general liability limits not less than \$1,000,000 for each occurrence and \$1,000,000 for the annual aggregate.

(3) Each owner or operator shall maintain a policy that shall provide that the deductible amount be first paid by the insurer upon establishment of the legal liability of the insured, with full right of recovery from the insured. The deductible amount shall not exceed 2.5% of the policy limit for single occurrences.

(b) Insurance provider.

(1) Each owner or operator shall maintain a liability insurance policy that shall be issued by an insurance company authorized to do business in Kansas or through a licensed insurance agent operating under the authority of K.S.A. 40-246b, and amendments thereto.

(2) Each owner's or operator's liability insurance policy shall be subject to the insurer's policy provisions filed with and approved by the commissioner of insurance pursuant to K.S.A. 40-216 and amendments thereto, except as authorized by K.S.A. 40-246b, and amendments thereto.

(c) Proof of insurance.

(1) Each owner or operator shall furnish, at the following times, a certificate or memorandum of insurance to the department for the department's approval, showing specifically the coverage and limits together with the name of the insurance company and insurance agent:

(A) Before the department issues the permit and before any development work is started; and

(B) before each annual renewal of the permit during the active life of the area or facility.

(2) If any of the coverage set forth on the certificate or memorandum of insurance is reduced, canceled, terminated, or not renewed, the owner or operator or insurance company shall furnish the department with an appropriate notice of the action no fewer than 30 days before the effective date of the reduction, cancellation, termination, or nonrenewal.

(d) Governmental entities. Any owner or operator that is a governmental entity as defined in K.S.A. 75-6102, and amendments thereto, and is subject to provisions of the Kansas tort claims act, and amendments thereto, may provide to the department a statement or other evidence of its intention to fund liability judgments in the manner provided in K.S.A. 75-6113, and amendments thereto, in lieu of providing evidence of purchased insurance covering liability for accidental occurrences.

(e) Variances. Any owner or operator may request that the department evaluate the hazard or hazards involved and may request a variance, un-

der K.A.R. 28-29-2, from the insurance method or specific insurance coverage amounts prescribed in this regulation if all the following conditions are met:

(1) The solid waste management activity is conducted solely on the premises where the wastes are generated.

(2) The owner or operator performs the waste management activity.

(3) The owner or operator is the owner of the property where the activity is conducted.

(4) The owner or operator is able to demonstrate other financial responsibility satisfactory to the department. This demonstration shall be made by adding the required liability coverage amount to the costs of closure and postclosure care assured by the corporate financial test method as specified in K.A.R. 28-29-2108, or the corporate guarantee method as specified in K.A.R. 28-29-2109. (Authorized by K.S.A. 2001 Supp. 65-3406; implementing K.S.A. 2001 Supp. 65-3407; effective March 22, 2002.)

Article 30.—WATER WELL CONTRACTOR'S LICENSE; WATER WELL CONSTRUCTION AND ABANDONMENT

28-30-1. (Authorized by K.S.A. 1979 Supp. 82a-1202, 82a-1205; effective, E-74-34, July 2, 1974; modified, L. 1975, ch. 481, May 1, 1975; revoked May 1, 1980.)

28-30-2. Definitions. (a) "License" means a document issued by the Kansas department of health and environment to qualified persons making application therefore, authorizing such persons to engage in the business of water well contracting.

(b) "Department" means the Kansas department of health and environment.

(c) "Abandoned water well" means a water well determined by the department to be a well:

(1) whose use has been permanently discontinued;

(2) in which pumping equipment has been permanently removed;

(3) which is either in such a state of disrepair that it cannot be used to supply water, or has the potential for transmitting surface contaminants into the aquifer, or both;

(4) which poses potential health and safety hazards; or

(5) which is in such a condition that it cannot be placed in active or inactive status.

(d) "Water well contractor" or "contractor" means any individual, firm, partnership, association, or corporation who constructs, reconstructs, or treats a water well. The term shall not include:

(1) an individual constructing, reconstructing or treating a water well located on land owned by the individual, when the well is used by the individual for farming, ranching, or agricultural purposes or for domestic purposes at the individual's place of abode; or

(2) an individual who performs labor or services for a licensed water well contractor at the contractor's direction and under the contractor's supervision.

(e) "Aquifer" means an underground formation that contains and is capable of transmitting groundwater.

(f) "Confined aquifer" is an aquifer overlain and underlain by impermeable layers. Groundwater in a confined aquifer is under pressure greater than atmospheric pressure and will rise in a well above the point at which it is first encountered.

(g) "Unconfined aquifer" is an aquifer containing groundwater at atmospheric pressure. The upper surface of the groundwater in an unconfined aquifer is the water table.

(h) "Domestic uses" means the use of water by any person or family unit or household for household purposes, or for the watering of livestock, poultry, farm and domestic animals used in operating a farm, or for the irrigation of lands not exceeding a total of two acres in area for the growing of gardens, orchards and lawns.

(i) "Public water-supply well" means a well that:

(1) provides groundwater to the public for human consumption; and

(2) has at least 10 service connections or serves an average of at least 25 individuals daily at least 60 days out of the year.

(j) "Groundwater" means the part of the subsurface water which is in the zone of saturation.

(k) "Grout" means cement grout, neat cement grout, bentonite clay grout or other material approved by the department used to create a permanent impervious watertight bond between the casing and the undisturbed formation surrounding the casing or between two or more strings of casing.

(1) "Neat cement grout" means a mixture con-

sisting of one 94 pound bag of portland cement to five to six gallons of clean water.

(2) "Cement grout" means a mixture consisting of one 94 pound bag of portland cement to an equal volume of sand having a diameter no larger than 0.080 inches (2 millimeters) to five to six gallons of clean water.

(3) "Bentonite clay grout" means a mixture consisting of water and commercial grouting or plugging sodium bentonite clay containing high solids such as that manufactured under the trade name of "volclay grout," or an equivalent as approved by the department.

(A) The mixture shall be as per the manufacturer's recommendations to achieve a weight of not less than 9.4 pounds per gallon of mix. Weighting agents may be added as per the manufacturer's recommendations.

(B) Sodium bentonite pellets, tablets or granular sodium bentonite may also be used if they meet the specifications listed in paragraph (k)(3) of this regulation.

(C) Sodium bentonite products that contain low solids, are designed for drilling purposes, or that contain organic polymers shall not be used.

(l) "Pitless well adapter or unit" means an assembly of parts installed below the frost line which will permit pumped groundwater to pass through the wall of the casing or extension thereof and prevent entrance of contaminants.

(m) "Test hole" or "hole" means any excavation constructed for the purpose of determining the geologic, hydrologic and water quality characteristics of underground formations.

(n) "Static water level" means the highest point below or above ground level which the groundwater in the well reaches naturally.

(o) "Annular space" means the space between the well casing and the well bore or the space between two or more strings of well casing.

(p) "Sanitary well seal" is a manufactured seal installed at the top of the well casing which, when installed, creates an airtight and watertight seal to prevent contaminated or polluted water from gaining access to the groundwater supply.

(q) "Treatment" means the stimulation of production of groundwater from a water well, through the use of hydrochloric acid, muriatic acid, sulfamic acid, calcium or sodium hypochlorite, polyphosphates or other chemicals and mechanical means, for the purpose of reducing or removing iron and manganese hydroxide and oxide deposits, calcium and magnesium carbonate

deposits and slime deposits associated with iron or manganese bacterial growths which inhibit the movement of groundwater into the well.

(r) "Reconstructed water well" means an existing well that has been deepened or has had the casing replaced, repaired, added to or modified in any way for the purpose of obtaining groundwater.

(s) "Pump pit" means a watertight structure which:

(1) is constructed at least two feet away from the water well and below ground level to prevent freezing of pumped groundwater; and

(2) houses the pump or pressure tank, distribution lines, electrical controls, or other appurtenances.

(t) "Grout tremie pipe" or "grout pipe" means a steel or galvanized steel pipe or similar pipe having equivalent structural soundness that is used to pump grout to a point of selected emplacement during the grouting of a well casing or plugging of an abandoned well or test hole.

(u) "Uncased test hole" means any test hole in which casing has been removed or in which casing has not been installed.

(v) "Drilling rig registration license number" means a number assigned by the department which is affixed to each drilling rig operated by or for a licensed water well contractor.

(w) "Active well" means a water well which is an operating well used to withdraw water, or to monitor or observe groundwater conditions.

(x) "Inactive status" means a water well which is not presently operating but is maintained in such a way that it can be put back in operation with a minimum of effort.

(y) "Heat pump hole" means a hole drilled to install piping for an earth coupled water source heat pump system, also known as a vertical closed loop system. (Authorized by K.S.A. 1992 Supp. 82a-1205 and implementing K.S.A. 82a-1202, K.S.A. 1992 Supp. 82a-1205, 82a-1213; effective, E-74-34, July 2, 1974; modified, L. 1975, ch. 481, May 1, 1975; amended May 1, 1980; amended May 1, 1987; amended Nov. 22, 1993.)

28-30-3. Licensing. (a) Eligibility. To be eligible for a water well contractor's license an applicant shall:

(1) pass an examination conducted by the department; or

(2) meet the conditions contained in subsection (c).

(b) Application and fees.

(1) Each application shall be accompanied by an application fee of \$10.00.

(2) Before issuance of a water well contractor's license, each contractor shall pay a license fee of \$100.00 plus \$25.00 for each drill rig operated by or for the contractor. These fees shall accompany the application and shall be by bank draft, check or money order payable to the Kansas department of health and environment—water well licensure.

(c) Reciprocity.

(1) Upon receipt of an application and payment of the required fees from a nonresident, the secretary may issue a license, providing the nonresident holds a valid license from another state and meets the minimum requirements for licensing as prescribed in K.S.A. 82a-1207, and any amendments thereto.

(2) If the nonresident applicant is incorporated, evidence shall be submitted to the department of health and environment showing that the applicant meets the registration requirements of the Kansas secretary of state.

(3) Nonresident fees for a license shall be equal to the fee charged a Kansas contractor by the applicant's state of residence but shall not be less than \$100.00. The application fee and drill rig license fee shall be the same as the Kansas resident fees.

(d) License renewal.

(1) Each licensee shall make application for renewal of license and rig registrations before July 1 of each year by filing the proper renewal forms provided by the department and fulfilling the following requirements:

(A) payment of the annual license fee and a rig registration fee for each drill rig to be operated in the state;

(B) filing of all well records for each water well constructed, reconstructed or plugged by the licensee in accordance with K.S.A. 28-30-4 during the previous licensure period;

(C) filing a report, on a form provided by the department, of all approved continuing education units earned by the licensee during the previous licensure period;

(D) satisfying the continuing education requirements set forth in subsection (g); and

(E) providing any remaining outstanding information or records requested that existed prior to the issuance of revocation of a license.

(2) Failure to comply with paragraphs (A), (B), (C), (D) and (E) above shall be grounds to revoke

the existing license and terminate the license renewal process.

(e) *Water well construction fee.* A fee of \$5.00 shall be paid to the Kansas department of health and environment, either by bank draft, check or money order, for each water well constructed by a licensed water well contractor. The construction fee shall be paid when the contractor requests the water well record form WWC-5 from the department, or shall accompany the water well records submitted on form WWC-5 as required under K.A.R. 28-30-4. No fee shall be required for reconstructed or plugged water wells.

(f) *License number.* Each drill rig operated by or for a licensed water well contractor shall have prominently displayed thereon the drill rig license number, as assigned by the department, in letters at least two inches in height. Decals, paint, or other permanent marking materials shall be used.

(g) *Continuing education requirements.* Licensed water well contractors shall earn at least eight units of approved continuing education per year beginning with the first full year of licensure or the renewal period. One unit of continuing education shall equal 50 minutes of approved instruction except for trade shows and exhibitions which shall be counted as one unit per approved trade show and exhibition attended. (Authorized by K.S.A. 1992 Supp. 82a-1205; implementing K.S.A. 82a-1202, K.S.A. 1992 Supp. 82a-1205, 82a-1206, 82a-1207, 82a-1209; effective, E-74-34, July 2, 1974; effective May 1, 1975; amended May 1, 1980; amended May 1, 1983; amended May 1, 1987; amended Nov. 22, 1993.)

28-30-4. General operating requirements. (a) *Water well record.* Within 30 days after construction or reconstruction of a water well, the water well contractor shall submit a report of such work, to the Kansas department of health and environment and to the landowner, on the water well record form, form WWC-5, provided by the department. The contractor shall report to the department and to the landowner on the water well record or attachments made thereto any polluted or other noncompliant conditions which the contractor was able to correct and any conditions which the contractor was unable to correct. The contractor shall report to the department and the landowner the plugging of any abandoned water well. The report shall include the location, landowner's name, method,

type of plug material, its placement and amount used to plug the abandoned water well.

A landowner who constructs, reconstructs, or plugs a water well, which will be or was, used by the landowner for farming, ranching or agricultural purposes or is located at the landowner's place of abode, shall submit a water well record, on form WWC-5, of such work to the department within 30 days after the construction, reconstruction or plugging of the water well. No fee shall be required from the landowner for the record.

(b) *Artificial recharge and return.* The construction of artificial recharge wells and freshwater return wells shall comply with all applicable rules and regulations of the department.

(c) *Well tests.* When a pumping test is run on a well, results of the test shall be reported on the water well record, form WWC-5, or a copy of the contractor's record of the pumping test shall be attached to the water well record.

(d) *Water samples.* Within 30 days after receipt of the water well record, form WWC-5, the department may request the contractor, or landowner who constructs or reconstructs his or her own water well, to submit a sample of water from the well for chemical analysis. Insofar as is possible, the department will define in advance areas from which well water samples are required. (Authorized by K.S.A. 82a-1205 and implementing K.S.A. 82a-1202, 82a-1205, 82a-1212, 82a-1213; effective, E-74-34, July 2, 1974; modified, L. 1975, ch. 481, May 1, 1975; amended May 1, 1980; amended May 1, 1987.)

28-30-5. Construction regulations for public water supply and reservoir sanitation zone wells. All activities involving public water supply wells and wells located in reservoir sanitation zones shall conform to existing statutes, and rules and regulations, of the Kansas department of health and environment, including K.A.R. 28-10-100, 28-10-101, and 28-15-16. (Authorized by K.S.A. 82a-1205; implementing K.S.A. 82a-1202, 82a-1205; effective, E-74-34, July 2, 1974; effective May 1, 1975; amended May 1, 1980; amended May 1, 1983; amended May 1, 1987.)

28-30-6. Construction regulations for all wells not included under section 28-30-5.

(a) Each water well shall be so located as to minimize the potential for contamination of the delivered or obtained groundwater and to protect groundwater aquifers from pollution and contamination.

(b) Grouting.

(1) Constructed or reconstructed wells shall be sealed by grouting the annular space between the casing and the well bore from ground level to a minimum of 20 feet or to a minimum of five feet into the first clay or shale layer if one is present, whichever is greater. If a pitless well adapter or unit is being installed, the grouting shall start below the point at which the pitless well adapter or unit attaches to the well casing and shall continue a minimum of 20 feet below this point, or to a minimum of five feet into the first clay or shale layer, whichever is greater.

(2) To facilitate grouting, the grouted interval of the well bore shall be drilled to a minimum diameter at least three inches greater than the maximum outside diameter of the well casing. If a pitless well adapter or unit is being installed on the well's casing, the well bore shall be a minimum diameter of at least three inches greater than the outside maximum diameter of the well casing through the grouted interval below the point where the pitless well adapter or unit attaches to the well casing.

(c) If groundwater is encountered at a depth less than the minimum grouting requirement, the grouting requirement may be modified to meet local conditions if approved by the department.

(d) Waters from two or more separate aquifers shall be separated from each other in the bore hole by sealing the bore hole between the aquifers with grout.

(e) The well casing shall terminate not less than one foot above the finished ground surface. No casing shall be cut off below the ground surface except to install a pitless well adapter unit, which shall extend at least 12 inches above the ground surface. No opening shall be made through the well casing except for the installation of a pitless well adapter designed and fabricated to prevent soil, subsurface and surface water from entering the well.

(f) Well vents shall be used and shall terminate not less than one foot above the ground surface and shall be screened with brass, bronze, copper screen or other screen materials approved by the department which are 16-mesh or greater and turned down in a full 180 degree return bend so as to prevent the entrance of contaminating materials.

(g) Prior to completion of a constructed or reconstructed well, the well shall be cleaned of mud,

drill cuttings and other foreign matter so as to make it suitable for pump installations.

(h) Casing. All wells shall have durable watertight casing from at least one foot above the finished ground surface to the top of the producing zone of the aquifer. The watertight casing shall extend not less than 20 feet below the ground level. Exceptions to either of the above requirements may be granted by the department if warranted by local conditions. The casing shall be clean and serviceable and of a type to guarantee reasonable life so as to insure adequate protection to the aquifer or aquifers supplying the groundwaters. Used, reclaimed, rejected, or contaminated pipe shall not be used for casing any well. All water well casing shall be approved by the department.

(i) All wells, when unattached during construction, reconstruction, treatment or repair, or during use as cased test holes, observation or monitoring wells, shall have the top of the well casing securely capped in a watertight manner to prevent contaminating or polluting materials from gaining access to the groundwater aquifer.

(j) During construction, reconstruction, treatment or repair and prior to its first use, all wells producing water for human consumption or food processing shall be disinfected according to K.A.R. 28-30-10.

(k) The top of the well casing shall be sealed by installing a sanitary well seal.

(l) All groundwater producing zones that are known or suspected to contain natural or man-made pollutants shall be adequately cased and grouted off during construction of the well to prevent the movement of polluted groundwater to either overlying or underlying fresh groundwater zones.

(m) Toxic materials shall not be used in the construction, reconstruction, treatment or plugging of a water well unless those materials are thoroughly flushed from the well prior to use.

(n) Any pump pit shall be constructed at least two feet away from the water well. The pipe from the pump or pressure tank in the pump pit to the water well shall be sealed in a watertight manner where it passes through the wall of the pump pit.

(o) Water wells shall not be constructed in pits, basements, garages or crawl spaces. Existing water wells which are reconstructed, abandoned and plugged in basements shall conform to these rules and regulations except that the finished grade of

the basement floor shall be considered ground level.

(p) All drilling waters used during the construction or reconstruction of any water well shall be initially disinfected by mixing with the water enough sodium hypochlorite to produce at least 100 milligrams per liter, mg/l, of available chlorine.

(q) Natural organic or nutrient producing material shall not be used during the construction, reconstruction, or treatment of a well unless it is thoroughly flushed from the well and the groundwater aquifer or aquifers before the well is completed. Natural organic or nutrient producing material shall not be added to a grout mix used to grout the well's annular space.

(r) Pump mounting.

(1) All pumps installed directly over the well casing shall be so installed that an airtight and watertight seal is made between the top of the well casing and the gear or pump head, pump foundation or pump stand.

(2) When the pump is not mounted directly over the well casing and the pump column pipe or pump suction pipe emerges from the top of the well casing, a sanitary well seal shall be installed between the pump column pipe or pump suction pipe and the well casing. An airtight and watertight seal shall be provided for the cable conduit when submersible pumps are used.

(s) Construction of sand point or well point water wells. Sand point or well point water wells shall be constructed by drilling or boring a pilot hole to a minimum depth of three feet below ground surface. The pilot hole shall be a minimum of three inches greater in diameter than the drive pipe or blank casing if the casing method is used. Sand point wells shall only be completed by using the casing method or the drive pipe method as described in paragraphs (1) and (2) below or other methods as described in paragraph (3) below. Sand point wells constructed prior to the effective date of this regulation shall not be required to meet these requirements. All sand point wells that are replaced, constructed, reconstructed or plugged after the effective date of this regulation shall meet these regulations.

(1) Casing method. Approved, durable, watertight well casing shall be set from a minimum of three feet below the ground surface to at least one foot above the ground surface. The casing shall be sealed between the casing and the pilot hole with approved grouting material from the bottom of

the casing to ground surface. The drive pipe shall be considered the pump drop pipe. For underground discharge completions, a "T" joint shall be used. The drive pipe shall be capped with a solid cap at the "T" joint when the casing method is used. An approved sanitary well seal and a well vent shall be installed on the top of the well casing in accordance with K.A.R. 28-30-6 (f) and (k).

(2) Drive pipe method. Sand point wells may be installed without a casing for above ground discharge completions only. In such completions, the drive pipe shall terminate at least one foot above finished ground level. The annular space between the drive pipe and the pilot hole shall be sealed with approved grouting material from the bottom of the pilot hole to ground surface. The top of the drive pipe shall be sealed airtight and watertight with a solid cap of the same material as the drive pipe. A well vent shall not be required for the drive pipe method.

(3) Other methods. Other methods may be specifically approved by the department on a case-by-case basis by using the appeal procedure included in K.A.R. 28-30-9.

(4) Abandonment of sand point wells. Upon abandonment of a sand point well, the contractor or landowner shall either pull the drive pipe or leave it in place. If the drive pipe is left in place, the sand point well shall be plugged from the bottom of the well to three feet below the ground surface with approved grouting material. The drive pipe well shall be cut off three feet below the ground surface and the remaining three foot deep hole shall be backfilled with surface soil.

If the drive pipe is completely pulled, the remaining hole shall be plugged with approved grouting material from the bottom of the remaining hole to three feet below the ground surface. The hole shall be backfilled with surface soil from 3 feet to ground surface. (Authorized by K.S.A. 1991 Supp. 82a-1205; implementing K.S.A. 82a-1202, K.S.A. 1991 Supp. 82a-1205; effective, E-74-34, July 2, 1974; modified, L. 1975, ch. 481, May 1, 1975; amended May 1, 1980; amended May 1, 1983; amended May 1, 1987; amended June 21, 1993.)

28-30-7. Plugging of abandoned wells, cased and uncased test holes. (a) All water wells abandoned by the landowner on or after July 1, 1979, and all water wells that were abandoned prior to July 1, 1979 which pose a threat to groundwater supplies, shall be plugged or caused

to be plugged by the landowner. In all cases, the landowner shall perform the following as minimum requirements for plugging abandoned wells.

(1) The casing shall be cut off three feet below ground surface and removed.

(2) All wells shall be plugged from bottom to top using volumes of material equaling at least the inside volume of the well.

(3) Plugging top of well:

(A) For cased wells a grout plug shall be placed from six to three feet below ground surface.

(B) For dug wells, the lining material shall be removed to at least five feet below ground surface, and then sealed at five feet with a minimum of six inches of concrete or other materials approved by the department. Compacted surface silts and clays shall be placed over the concrete seal to ground surface.

(4) Any groundwater displaced upward inside the well casing during the plugging operation shall be removed before additional plugging materials are added.

(5) From three feet below ground level to ground level, the plugged well shall be covered over with compacted surface silts or clays.

(6) Compacted clays or grout shall be used to plug all wells from the static water level to six feet below surface.

(7) All sand and gravel used in plugging abandoned domestic or public water supply wells shall be chlorinated prior to placement into a well.

(b) Abandoned wells formerly producing groundwater from an unconfined aquifer shall be plugged in accordance with the foregoing and in addition shall have washed sand, and gravel or other material approved by the department placed from the bottom of the well to the static water level.

(c) Abandoned wells, formerly producing groundwater from confined and unconfined aquifers or in confined aquifers only, shall be plugged according to K.A.R. 28-30-7(a) and by using one of the following additional procedures:

(1) The entire well column shall be filled with grout, or other material approved by the department, by use of a grout tremie pipe.

(2) A 10 foot grout plug shall be placed opposite the impervious formation or confining layer above each confined aquifer or aquifers by use of a grout tremie pipe; and

(A) The space between plugs shall be filled with clays, silts, sand and gravel or grout and shall be placed inside the well so as to prevent bridging.

(B) A grout plug at least 20 feet in length shall be placed with a grout pipe so at least 10 feet of the plug extends below the base of the well casing and at least 10 feet of the plug extends upward inside the bottom of the well casing.

(C) A grout plug at least 10 feet in length shall be placed from at least 13 feet below ground level to the top of the cut off casing.

(3) Wells that have an open bore hole below the well casing, and where the casing was not grouted into the well bore when the well was constructed, shall be plugged by (1) or (2) above except that the top 20 feet of well casing shall be removed or perforated with a casing ripper or similar device prior to plugging. If the well is plugged according to part (2) of this subsection, the screened or perforated intervals below the well casing shall be grouted the entire length by use of a grout tremie pipe.

(d) Plugging of abandoned holes. If the hole penetrates an aquifer containing water with more than 1,000 milligrams per liter, mg/l, total dissolved solids or is in an area determined by the department to be contaminated, the entire hole shall be plugged with an approved grouting material from the bottom of the hole, up to within three feet of the ground surface using a grout tremie pipe or similar method. From three feet below ground surface to ground surface the plugged hole shall be covered over with compacted surface silts or clays; otherwise, the hole shall be plugged in accordance with the following paragraphs.

(1) Plugging of abandoned cased test holes. The casing shall be removed if possible and the abandoned test hole shall be plugged with an approved grouting material from the bottom of the hole, up to within three feet of the ground surface, using a grout tremie pipe or similar method. From three feet below ground surface to ground surface the plugged hole shall be covered over with compacted surface silts or clays. If the casing cannot be removed, in addition to plugging the hole with an approved grouting material the annular space shall also be grouted as described in K.A.R. 28-30-6 or as approved by the department.

(2) Abandoned uncased test holes, exploratory holes or any bore holes except seismic or oil field related exploratory and service holes regulated by the Kansas corporation commission under K.A.R. 82-3-115 through 82-3-117. A test hole or bore hole drilled, bored, cored or augered shall be considered an abandoned hole immediately after the completion of all testing, sampling or other op-

erations for which the hole was originally intended. The agency or contractor in charge of the exploratory or other operations for which the hole was originally intended is responsible for plugging the abandoned hole using the following applicable method, within three calendar days after the termination of testing or other operations.

(A) The entire hole shall be plugged with an approved grouting material from bottom of the hole, up to within three feet of the ground surface, using a grout tremie pipe or similar method.

(B) From three feet below ground surface to ground surface the plugged hole shall be covered over with compacted surface silts or clays.

(C) For bore holes of 25 feet or less, drill cuttings from the original hole may be used to plug the hole in lieu of grouting material, provided that an aquifer is not penetrated or the bore hole is not drilled in an area determined by the department to be a contaminated area.

(3) Plugging of heat pump holes drilled for closed loop heat pump systems. The entire hole shall be plugged with an approved grouting material from bottom of the hole, to the bottom of the horizontal trench, using a grout tremie pipe or similar method approved by the department.

(e) Abandoned oil field water supply wells. A water well drilled at an oil or gas drilling site to supply water for drilling activities shall be considered an abandoned well immediately after the termination of the oil or gas drilling operations. The company in charge of the drilling of the oil or gas well shall be responsible for plugging the abandoned water well, in accordance with K.A.R. 28-30-7(a), (b), and (c), within 30 calendar days after the termination of oil or gas drilling operations.

Responsibility for the water well may be conveyed back to the landowner in lieu of abandoning and plugging the well but the well must conform to the requirements for active or inactive status. The transfer must be made through a legal document, approved by the department, advising the landowner of the landowner's responsibilities and obligations to properly maintain the well, including the proper plugging of the well when it is abandoned and no longer needed for water production activities. If a transfer is to be made, the oil or gas drilling company shall provide the department with a copy of the transfer document within 30 calendar days after the termination of oil or gas drilling operations. Within 30 calendar days of the effective date of the transfer of the well the landowner shall notify the department of

the intended use and whether the well is in active status or inactive status in accordance with K.A.R. 28-30-7(f).

(f) Inactive status. Landowners may obtain the department's written approval to maintain wells in an inactive status rather than being plugged if the landowner can present evidence to the department as to the condition of the well and as to the landowner's intentions to use the well in the future. As evidence of intentions, the owner shall be responsible for properly maintaining the well in such a way that:

(1) The well and the annular space between the hole and the casing shall have no defects that will permit the entrance of surface water or vertical movement of subsurface water into the well;

(2) the well is clearly marked and is not a safety hazard;

(3) the top of the well is securely capped in a watertight manner and is adequately maintained in such a manner as to prevent easy entry by other than the landowner;

(4) the area surrounding the well shall be protected from any potential sources of contamination within a 50 foot radius;

(5) if the pump, motor or both, have been removed for repair, replacement, etc., the well shall be maintained to prevent injury to people and to prevent the entrance of any contaminant or other foreign material;

(6) the well shall not be used for disposal or injection of trash, garbage, sewage, wastewater or storm runoff; and

(7) the well shall be easily accessible to routine maintenance and periodic inspection.

The landowner shall notify the department of any change in the status of the well. All inactive wells found not to be in accordance with the criteria listed in lines one through seven above shall be considered to be abandoned and shall be plugged by the landowner in accordance with K.A.R. 28-30-7(a) through (c). (Authorized by K.S.A. 82a-1205; implementing K.S.A. 82a-1202, 82a-1205, 82a-1212, 82a-1213; effective, E-74-34, July 2, 1974; modified, L. 1975, ch. 481, May 1, 1975; amended May 1, 1980; amended May 1, 1983; amended May 1, 1987.)

28-30-8. Pollution sources. Well locations shall be approved by municipal and county governments with respect to distances from pollution sources and compliance with local regulations.

The following minimum standard shall be observed.

(a) The horizontal distances between the well and the potential source of pollution or contamination such as sewer lines, pressure sewer lines, septic tanks, lateral fields, pit privy, seepage pits, fuel or fertilizer storage, pesticide storage, feed lots or barn yards shall be 50 feet or more as determined by the department.

(b) Proper drainage in the vicinity of the well shall be provided so as to prevent the accumulation and ponding of surface water within 50 feet of the well. The well shall not be located in a ravine or any other drainage area where surface water may flow into the well.

(c) When sewer lines are constructed of cast iron, plastic or other equally tight materials, the separation distance shall be 10 feet or more as determined by the department.

(d) All wells shall be 25 feet or more from the nearest property line, allowing public right-of-ways to be counted; however, a well used only for irrigation or cooling purposes may be located closer than 25 feet to an adjoining property where:

(1) such adjoining property is served by a sanitary sewer and does not contain a septic tank system, disposal well or other source of contamination or pollution; and

(2) the property to be provided with the proposed well is served by both a sanitary sewer and a public water supply. (Authorized by and implementing K.S.A. 82a-1202, 82a-1205; effective, E-74-34, July 2, 1974; modified, L. 1975, ch. 481, May 1, 1975; amended May 1, 1980; amended May 1, 1987.)

28-30-9. Appeals. (a) Requests for exception to any of the foregoing rules and regulations shall be submitted to the department in writing and shall contain all information relevant to the request.

(1) Those requests shall specifically set forth why such exception should be considered.

(2) The department may grant exceptions when geologic or hydrologic conditions warrant an exception and when such an exception is in keeping with the purposes of the Kansas groundwater exploration and protection act.

(b) Appeals from the decision of the department shall be made to the secretary, who after due consideration may affirm, reverse or modify the decision of the department. (Authorized by K.S.A. 82a-1205; implementing K.S.A. 82a-1202, 82a-

1205; effective, E-74-34, July 2, 1974; effective May 1, 1975; amended May 1, 1980; amended May 1, 1983; amended May 1, 1987.)

28-30-10. Water well disinfection for wells constructed or reconstructed for human consumption or food processing. (a)

Gravel for gravel-packed wells shall be disinfected by immersing the gravel in a chlorine solution containing not less than 200 milligrams per liter, mg/l, of available chlorine before it is placed in the wells annular space.

(b) Constructed or reconstructed wells shall be disinfected by adding sufficient hypochlorite solution to them to produce a concentration of not less than 100 mg/l of available chlorine when mixed with the water in the well.

(c) The pump, casing, screen and pump column shall be washed down with a 200 mg/l available chlorine solution.

(d) All persons constructing, reconstructing or treating a water well and removing the pump or pump column, replacing a pump, or otherwise performing an activity which has potential for contaminating or polluting the groundwater supply shall be responsible for adequate disinfection of the well, well system and appurtenances thereto. (Authorized by and implementing K.S.A. 82a-1202, 82a-1205; effective, E-74-34, July 2, 1974; modified, L. 1975, ch. 481, May 1, 1975; amended May 1, 1980; amended May 1, 1987.)

EQUUS BEDS GROUNDWATER MANAGEMENT DISTRICT NO. 2

28-30-200. Definitions. In addition to the definitions in K.A.R. 28-30-2, the following definitions shall apply to the Equus Beds groundwater management district no. 2:

(a) "Bedrock" means shale, limestone, sandstone, siltstone, anhydrite, gypsum, salt, or other consolidated rock that can occur at the surface or underlie unconsolidated material.

(b) "Board" means the board of directors constituting the governing body of the Equus Beds groundwater management district no. 2.

(c) "Borehole" means any hole that is drilled, cored, bored, washed, driven, dug, or otherwise excavated, in which the casing and screen have been removed or in which the casing has not been installed.

(d) "Contaminate" means to engage in any act or omission causing the addition or introduction of substances to freshwater in concentrations that

alter the physical, chemical, biological, or radiological properties of the freshwater, making the water unfit for beneficial use.

(e) "District" means the Equus Beds groundwater management district no. 2, which is organized for groundwater management purposes pursuant to K.S.A. 82a-1020 et seq., and amendments thereto.

(f) "Fluid" means any material or substance that flows or moves in a semisolid, liquid, sludge, gas, or any other form or state.

(g) "Free-fall" means a method used to place grout in a water well or borehole that meets all of the following conditions:

(1) The total grouting depth below ground level does not exceed 75 feet.

(2) The grouting interval is free of fluids.

(3) The diameter of the water well casing or borehole is sufficient to allow the unobstructed flow of grout throughout the entire grouting interval.

(4) Grout is poured or discharged into the water well or borehole at a controlled rate.

(h) "Fresh groundwater" means water containing not more than 1,000 milligrams of total dissolved solids per liter and 500 milligrams of chloride per liter.

(i) "Grout" has the meaning specified in K.A.R. 28-30-2.

(j) "Grout seal" means grout that is installed, placed, pumped, or injected to create a permanent, impervious watertight bond in a well casing, annular space, geologic unit, or any other apertures or apparatuses associated with a water well or borehole.

(k) "Inactive well" means a water well that meets the following conditions:

(1) Is not operational;

(2) is properly constructed as specified in K.A.R. 28-30-5 or K.A.R. 28-30-6;

(3) is equipped with a watertight seal; and

(4) is maintained in good repair until the water well is returned to service as an active water well.

(l) "Licensed geologist" means a geologist licensed to practice geology in Kansas by the Kansas board of technical professions.

(m) "Licensed professional engineer" means a professional engineer licensed to practice engineering in Kansas by the Kansas board of technical professions.

(n) "Monitoring well" means a water well used to monitor, obtain, or collect hydrologic, geologic, geophysical, chemical, or other technical data per-

taining to groundwater, surface water, or other hydrologic conditions.

(o) "Test borehole" means a borehole used to obtain or collect hydrologic, geologic, geophysical, chemical, or other technical data pertaining to groundwater, surface water, or other hydrologic conditions by means of placing sampling, logging, testing, casing, screen, or associated tools or equipment in the borehole for fewer than 30 days. (Authorized by and implementing K.S.A. 2004 Supp. 82a-1028 and K.S.A. 82a-1213; effective Sept. 30, 2005.)

28-30-201. Plugging operations; notification; report. (a) All plugging operations shall be supervised by one of the following:

(1) A water well contractor licensed by the department;

(2) a licensed professional engineer or licensed geologist; or

(3) the water well or borehole owner, or the landowner of the property on which the water well or borehole is located.

(b) Each water well or borehole owner, or the landowner of the property on which the water well or borehole is located, shall notify the district within 48 hours before any plugging operations occur.

(c) Within 30 days after the plugging operation is completed, one of the following requirements shall be met:

(1) The water well contractor, licensed professional engineer, or licensed geologist that supervised the water well or borehole plugging operations shall submit a completed report of the work on the department's plugging record form WWC-5P or WWC-5 to the department, the district, and the landowner.

(2) The water well or borehole owner, or the landowner of the property on which the water well or borehole is located, shall submit a completed report of the work on the department's plugging record form WWC-5P or WWC-5 to the department and the district. (Authorized by and implementing K.S.A. 2004 Supp. 82a-1028 and K.S.A. 82a-1213; effective Sept. 30, 2005.)

28-30-202. Plugging operations for an abandoned water well or borehole; responsibility. (a) Each water well or borehole shall be considered abandoned if at least one of the following conditions exists:

(1) The water well or borehole was not completed.

(2) The water well or borehole threatens to contaminate fresh groundwater.

(3) The water well or borehole poses a safety or health hazard.

(4) Uncontrolled fluid flow is encountered or present in the water well or borehole.

(5) The use of the water well or borehole has ceased.

(6) The borehole testing, sampling, or other operations are completed within 30 days of completion of the borehole drilling.

(7) The water well or borehole owner has not demonstrated the intention to use the water well or borehole.

(8) The water well can not be maintained in an active or inactive status.

(9) The water well or borehole is not operational or functional for the intended use.

(b) Each water well or borehole owner or the landowner of the property shall plug or cause an abandoned water well or borehole to be plugged as required in subsection (c) of this regulation.

(c) Except as specified in subsection (e), the minimum plugging operations for an abandoned water well or borehole shall include the following:

(1) Before plugging operations begin, the following water well or borehole data shall be recorded as follows:

(A) The legal description of the water well or borehole location, to the nearest 10-acre tract and, if available, the geographic coordinates consisting of the latitude, longitude, and base datum;

(B) the diameter of the water well or borehole;

(C) the static water level; and

(D) the total depth of the water well or borehole.

(2) The materials used to plug a water well or borehole shall be clean, free of defects, properly prepared, and installed according to the manufacturer's specifications.

(3) All plugging material that forms a bridge, entraps air or other fluids, or forms a blockage in the water well or borehole shall be freed or removed before continuing plugging operations.

(4) All pumping, sampling, logging, and related equipment and any other material or debris in the water well or borehole shall be removed from the water well or borehole.

(5) The annular space of the water well shall be grouted as specified in K.A.R. 28-30-203.

(6) Before plugging operations begin and when plugging operations are suspended or interrupted, the opening of the water well or borehole shall be

secured to prevent fluids from entering the water well or borehole.

(7) Before placement of any plugging material, the water well or borehole shall be disinfected as specified in K.A.R. 28-30-205.

(8) Except as specified in subsection (d) of this regulation, all of the following minimum grouting requirements shall be met:

(A) The water well or borehole shall be grouted from the bottom to three feet below ground level.

(B) Each water well meeting the requirements of subsection (d) shall be grouted from the top of the sand or gravel plugging material to three feet below ground level.

(C) Grout shall be placed in the water well or borehole using one of the following:

(i) A grout tremie pipe;

(ii) free-fall; or

(iii) a grouting procedure recommended by the grout manufacturer.

(D) Grout shall be allowed to cure as recommended by the grout manufacturer.

(9) Except as required by K.A.R. 28-30-203, the water well casing shall be cut off at a minimum of three feet below land surface and removed.

(10) From three feet below land surface to land surface, the water well or borehole shall be back-filled with clean, compacted topsoil and sloped so that drainage or runoff is directed away from the plugged water well or borehole.

(d) Any water well or borehole owner, landowner of the property, water well contractor, licensed geologist, or licensed professional engineer may utilize coarse sand or fine gravel to plug a water well by filling the water well casing to the static water level or six feet below ground level, whichever is the greater distance below ground level, if both of the following water well conditions are present:

(1) The water well is cased.

(2) The water well is completed in a single unconfined aquifer.

(e) Drill cuttings from the original borehole may be used to plug a borehole that meets all of the following conditions:

(1) The depth of the borehole is less than the highest historical groundwater level.

(2) The depth of the borehole is 25 feet or less below ground level.

(3) The borehole is not located in a contaminated area. (Authorized by and implementing K.S.A. 2004 Supp. 82a-1028 and K.S.A. 82a-1213; effective Sept. 30, 2005.)

28-30-203. Annular space grouting procedures. (a) Each water well or borehole owner or landowner of the property with an abandoned water well that was constructed on or after May 1, 1983 shall have the water well's annular space grouted as follows:

(1) From three feet below ground level to a minimum of 20 feet below ground level; or

(2) below the point at which a pitless well adapter attaches to the well casing to a minimum of 20 feet below the pitless well adapter.

(b) The annular space of each abandoned water well in which the water well was constructed before May 1, 1983 shall be grouted as follows:

(1) If the annular space does not contain grout or gravel pack and is free of debris, the grout shall be placed in the annular space in the following manner:

(A) From three feet below ground level to 20 feet below ground level; or

(B) below the point at which a pitless well adapter attaches to the well casing to a minimum of 20 feet below the pitless well adapter.

(2) If the annular space contains gravel pack or other material, all of the following requirements shall be met:

(A) The well casing shall be removed to a depth of four feet below ground level.

(B) The annular space shall be freed of gravel pack, any other material, and fluid from the top of the casing to six feet below the top of the well casing.

(C) The grout shall be placed in the annular space from six feet below the top of the well casing to one foot above the top of the well casing.

(c) From three feet below ground level to ground level, the water well or borehole shall be backfilled with clean, compacted topsoil and sloped so that the drainage or runoff is directed away from the plugged water well or borehole.

(d) If groundwater is encountered at a depth less than the minimum grouting requirement, the annular space grouting requirement may be modified by requesting a variance from the district as specified in K.A.R. 28-30-208. (Authorized by and implementing K.S.A. 2004 Supp. 82a-1028 and K.S.A. 82a-1213; effective Sept. 30, 2005.)

28-30-204. Inactive well; application; construction and extension. (a) Each owner of an inactive water well shall meet the following requirements:

(1) Submit a completed, signed, and notarized

inactive water well agreement, on a form provided by the district, to the district manager 30 days before placing the well on inactive status. The form shall include a statement that the water well does not pose a public health or safety hazard and does not threaten to contaminate the groundwater;

(2) remove all pumping equipment from the water well;

(3) construct the water well and the annular space as specified in K.A.R. 28-30-6;

(4) seal and maintain the water well and the annular space to prohibit the entrance of surface fluids and materials and the vertical movement of subsurface water into the well and to prevent damage;

(5) post a sign that meets the following conditions within three feet of the water well:

(A) Has a minimum height of three feet above land surface;

(B) is easily visible;

(C) is continually maintained; and

(D) is constructed with the words "Inactive Water Well" and a legal description consisting of the 10-acre tract, section, township, and range description printed legibly; and

(6) securely install a watertight seal or cap on the water well casing opening a minimum of one foot above land surface that consists of one of the following:

(A) Steel plating that is a minimum of ¼ inch thick and is welded to the casing opening;

(B) a polyvinylchloride cap glued to the water well casing opening, with a minimum standard dimension ratio (SDR) of 21 or less on well casing less than four inches in diameter and a minimum SDR of 26 or less on well casing four or more inches in diameter. The SDR shall be calculated by dividing the casing's outside diameter (OD) by its minimum wall thickness (MWT); or

(C) any other seal or cap that is approved by the district manager.

(b) Each water well owner shall repair all damage to the water well within 30 days, unless the district manager determines that the water well poses a public health or safety hazard, in which case the district manager shall set the time period for fewer than 30 days.

(c) Each water well owner shall notify the district within 30 days after the water well is returned to service as an active water well.

(d) The district manager or a staff member of the district may inspect any inactive water well.

(e) Each water well owner shall be responsible

for properly maintaining the water well in the inactive status.

(f) A radius of 50 feet around the inactive well shall be free of contamination.

(g) An inactive water well shall not be used for disposal or injection of any fluids or materials.

(h) Each inactive water well shall be easily accessible for routine maintenance and inspection.

(i) Each water well owner shall notify the district manager of any change in the condition of the water well.

(j) Each inactive water well that does not meet the requirements of these regulations shall be deemed abandoned and shall be plugged in accordance with these regulations.

(k) The expiration date of the inactive water well period may be extended beyond the date authorized in the approved inactive water well agreement or the date of any extension authorized by the district manager, if the water well is in good repair and meets the requirements of these regulations. The extension of time shall not exceed one year beyond the expiration date of the inactive well agreement or the date of any authorized extension.

(l) Each approved inactive water well request and each approved extension of time shall be reported by the district to the department, in writing, within 30 days of approval on a form provided by the district. (Authorized by and implementing K.S.A. 2004 Supp. 82a-1028 and K.S.A. 82a-1213; effective Sept. 30, 2005.)

28-30-205. Disinfection of an abandoned water well or borehole. (a) Except as specified in subsection (b), the following minimum quantities of sodium hypochlorite with 5.25 percent to 6.0 percent strength, manufactured under trade names including Clorox, Purex, Sno-White, and Topco, and other bleach products with similar properties, shall be used to disinfect each abandoned water well or borehole:

Water well casing or hole diameter (inches)	Sodium hypochlorite (fluid ounces per foot of water column)
1.25	0.015
1.5	0.023
2	0.041
2.5	0.064
3	0.094
3.5	0.127
4	0.165

Water well casing or hole diameter (inches)	Sodium hypochlorite (fluid ounces per foot of water column)
5	0.259
6	0.381
8	0.660
10	1.036
12	1.490
14	2.031
16	2.650
18	3.354
24	5.966
30	9.317

(b) Any concentration of sodium hypochlorite not specified in subsection (a) or any combination of calcium hypochlorite may be used to disinfect an abandoned water well or borehole, if a minimum concentration of 100 milligrams of chlorine solution per liter per foot of water column in the water well or borehole is produced. (Authorized by and implementing K.S.A. 2004 Supp. 82a-1028 and K.S.A. 82a-1213; effective Sept. 30, 2005.)

28-30-206. Administrative appeal to the board. (a) Any owner of a water well or borehole or any person whose legal rights, duties, privileges, immunities, or other legal interests are affected by an order issued by the district may request an appeal hearing with the board.

(b) The request for hearing shall be filed with the board within 30 days after service of the order on the owner or owners of the water well or borehole or any person whose legal rights, duties, privileges, immunities, or other legal interests are affected by the order. The request for hearing shall state the basis for requesting a hearing and shall be accompanied by documentation supporting the request.

(c) During the hearing, the board may take into consideration any relevant information or data, including information and data from any person whose legal rights, duties, privileges, immunities, or other legal interests may be affected by the order.

(d) After consideration of all information and data presented, the board shall issue one of the following:

(1) An order remanding the case to the district manager with instructions for additional investigation; or

(2) a final order that contains findings of fact and conclusions of law.

(e) Within 15 days of the service of a final order,

the owner or owners of the water well or borehole or any person whose legal rights, duties, privileges, immunities, or other legal interests are affected may file a written petition for reconsideration to the board. The petition for reconsideration shall state the basis and contain any facts and conclusions of law that are in dispute.

(f) The board shall render a written order denying the petition for reconsideration, granting the petition for reconsideration and modifying the final order, or granting the petition for reconsideration and setting the matter for further proceedings. After further proceedings, the petition for reconsideration may be denied or granted in whole or in part.

(g) Unless clear and convincing evidence is presented to the board, the board shall not render a written order if the order would result in any of the following:

- (1) The impairment of an existing groundwater use;
- (2) an adverse effect on public health, safety, or the environment;
- (3) the threat of groundwater contamination;
- (4) an adverse effect on the public interest; or
- (5) the impairment of the board's ability to apply and enforce these regulations or the management program specified in K.S.A. 82a-1029, and amendments thereto.

(h) Any owner or owners or any person whose legal rights, duties, privileges, immunities, or other legal interests are affected by a final order or order rendered upon reconsideration may seek judicial review pursuant to the act for judicial review and civil enforcement of agency actions specified in K.S.A. 77-601 et seq., and amendment thereto.

(i) Each order issued by the board shall be mailed to the owner or owners; any person whose legal rights, duties, privileges, immunities, or other legal interests are affected by the order; and the department. Service shall be deemed complete upon mailing. (Authorized by and implementing K.S.A. 2004 Supp. 82a-1028; effective Sept. 30, 2005.)

28-30-207. Variance; extension of time.

(a) If an individual or party wants a variance from any of the regulations contained in K.A.R. 28-30-200 through K.A.R. 28-30-206 or an extension of time pursuant to K.A.R. 28-30-204, the individual

or party shall submit a request, in writing, to the district.

(1) Each request shall include the following:

(A) The name, address, telephone number, and contact person of the individual or party requesting the variance or extension of time;

(B) the specific legal description of the site location to which the variance or extension of time would apply;

(C) the specific regulation from which the variance is sought or the amount of time requested; and

(D) the reason for requesting the variance or extension of time and any supporting data.

(2) A variance or extension of time may be granted by the district manager if the variance or extension is in keeping with the purposes of the Kansas groundwater exploration and protection act and the groundwater management district act.

(b) Each variance or extension of time granted by the district manager shall be reported by the district to the department within 30 days of approval.

(c) Each individual or party who wants an extension of time for the inactive water well period shall submit the request at least 30 days before the expiration date on a form provided by the district. (Authorized by and implementing K.S.A. 2004 Supp. 82a-1028; effective Sept. 30, 2005.)

**Article 31.—HAZARDOUS WASTE
MANAGEMENT STANDARDS AND
REGULATIONS**

28-31-1. General provisions. (a) The following federal regulations, as in effect on July 1, 2000, are hereby adopted by reference:

- (1) 40 CFR Part 124, subparts A and B;
- (2) 40 CFR Part 260, except 260.21 and 260.22;
- (3) 40 CFR Part 261, except 261.5;
- (4) 40 CFR Part 262, except 262.10 (b) and 262.34 (b) through (i);
- (5) 40 CFR Part 263, except 263.10 (a) and 263.20 (h);
- (6) 40 CFR Parts 264, 265, 266, and 268;
- (7) 40 CFR Part 270, except subpart H;
- (8) 40 CFR Part 273; and
- (9) 40 CFR Part 279, except 279.10 (b)(3).

(b) The following federal regulations, as in effect on October 1, 2000, are hereby adopted by reference:

- (1) 49 CFR Part 172;

- (2) 49 CFR Part 173;
- (3) 49 CFR Part 178; and
- (4) 49 CFR Part 179.

(c) When used in any provision adopted from 40 CFR Parts 124, 260, 261, 262, 263, 264, 265, 266, 268, 270, 273, or 279, the following substitutions shall be made:

(1) "The United States" shall be replaced with "the state of Kansas."

(2) "Environmental protection agency" shall be replaced with "Kansas department of health and environment."

(3) "Environmental appeals board" shall be replaced with "secretary."

(4) "Generators of greater than 100 kg but less than 1,000 kg of hazardous waste in a calendar month" shall be replaced with "generators of more than 25 kg but less than 1,000 kg of hazardous waste in a calendar month."

(5) "Administrator" and "regional administrator" shall be replaced with "secretary."

(6) "Federal Register" shall be replaced with "Kansas Register."

(d) When used in any provision adopted from 40 CFR Part 262, "generator" shall be replaced with "EPA or Kansas generator," except in 262.34, where "generator" shall be replaced with "EPA generator." (Authorized by and implementing K.S.A. 2001 Supp. 65-3431; effective, E-82-20, Nov. 4, 1981; effective May 1, 1982; amended, T-86-32, Sept. 24, 1985; amended May 1, 1986; amended May 1, 1987; amended May 1, 1988; amended Feb. 5, 1990; amended April 25, 1994; amended June 4, 1999; amended Sept. 20, 2002.)

28-31-2. Definitions. (a) The definitions in 40 CFR Part 260, subpart B shall apply to all of the regulations in article 31.

(b) "Disposal authorization" means approval from the secretary to dispose of hazardous waste in Kansas.

(c) "EPA generator" means any person who meets any of the following conditions:

(1) Generates in any single calendar month 1,000 kilograms (2,200 pounds) or more of hazardous waste;

(2) accumulates at any time 1,000 kilograms (2,200 pounds) or more of hazardous waste;

(3) generates in any single calendar month 1 kilogram (2.2 pounds) or more of acutely hazardous waste;

(4) accumulates at any time 1 kilogram (2.2 pounds) or more of acutely hazardous waste;

(5) generates in any single calendar month 25 kilograms (55 pounds) or more of any residue or contaminated soil, waste, or other debris resulting from the cleanup of a spill of any acutely hazardous waste; or

(6) accumulates at any time 25 kilograms (55 pounds) or more of any residue or contaminated soil, waste, or other debris resulting from the cleanup of a spill of acutely hazardous waste.

(d) "Kansas generator" means any person who meets all of the following conditions:

(1) Generates in any single calendar month 25 kilograms (55 pounds) or more and less than 1,000 kilograms (2,200 pounds) of hazardous waste;

(2) accumulates at any time less than 1,000 kilograms (2,200 pounds) of hazardous waste;

(3) generates in any single calendar month less than 1 kilogram (2.2 pounds) of acutely hazardous waste;

(4) accumulates at any time less than 1 kilogram (2.2 pounds) of acutely hazardous waste;

(5) generates in any single calendar month less than 25 kilograms (55 pounds) of any residue or contaminated soil, waste, or other debris resulting from the cleanup of a spill of acutely hazardous waste; and

(6) accumulates at any time less than 25 kilograms (55 pounds) of any residue or contaminated soil, waste, or other debris resulting from the cleanup of a spill of acutely hazardous waste.

(e) "Small quantity generator" means any person who meets both of the following conditions:

(1) Generates in any single calendar month less than 25 kilograms (55 pounds) of hazardous waste; and

(2) meets the conditions of a Kansas generator listed in paragraphs (d)(2) through (d)(6) of this regulation.

(f) Differences between state and federal definitions. When the same term is defined both in the Kansas statutes or these regulations and in any federal regulation adopted by reference in these rules and regulations and the definitions are not identical, the definition prescribed in the Kansas statutes or regulations shall control, except for the term "solid waste."

In this regulation, each reference to a federal regulation shall be deemed to refer to that federal regulation as adopted by reference in K.A.R. 28-31-1. (Authorized by and implementing K.S.A. 2001 Supp. 65-3431; effective, E-82-20, Nov. 4, 1981; effective May 1, 1982; amended, T-84-5, Feb. 10, 1983; amended May 1, 1984; amended,

T-85-42, Dec. 19, 1984; amended May 1, 1985; amended, T-86-32, Sept. 24, 1985; amended May 1, 1986; amended May 1, 1987; amended May 1, 1988; amended Feb. 5, 1990; amended April 25, 1994; amended June 4, 1999; amended Sept. 20, 2002.)

28-31-3. Identification and listing of hazardous waste. (a) The requirements for the identification and listing of hazardous waste shall be those requirements set forth in 40 CFR Part 261, except for 261.5.

(b) The requirements for rule-making petitions shall be those requirements specified in 40 CFR Part 260, subpart C. A reevaluation of a petition that has previously been approved may be conducted by the secretary at any time for just cause.

In this regulation, each reference to a federal regulation shall be deemed to refer to that federal regulation as adopted by reference in K.A.R. 28-31-1. (Authorized by and implementing K.S.A. 2001 Supp. 65-3431; effective, E-82-20, Nov. 4, 1981; effective May 1, 1982; amended, T-84-5, Feb. 10, 1983; amended May 1, 1984; amended, T-85-42, Dec. 19, 1984; amended May 1, 1985; amended, T-86-32, Sept. 24, 1985; amended May 1, 1986; amended May 1, 1987; amended May 1, 1988; amended Feb. 5, 1990; amended April 25, 1994; amended June 4, 1999; amended Sept. 20, 2002.)

28-31-4. Standards for generators of hazardous waste. (a) Scope and applicability. Each generator of hazardous waste and each person who imports hazardous waste into Kansas shall comply with this regulation. In addition, each owner or operator of a treatment, storage, or disposal facility who initiates a shipment of hazardous waste shall comply with this regulation.

(b) Hazardous waste determination. Each person who generates solid waste, as defined by 40 CFR 261.2, shall determine if that waste is a hazardous waste using all of the following methods.

(1) Each person shall first determine if the waste is excluded from regulation under 40 CFR 261.4.

(2) If the waste is not excluded under paragraph (b)(1), the person shall next determine if the waste is listed as a hazardous waste in 40 CFR Part 261, subpart D.

(3) If the waste is not listed as a hazardous waste in 40 CFR Part 261, subpart D, the person shall determine whether or not the waste is iden-

tified in 40 CFR Part 261, subpart C, by one of the following means:

(A) Submitting the waste for testing according to the methods in 40 CFR Part 261, subpart C, by a laboratory that is certified for these analyses by the department; or

(B) applying knowledge of the hazardous characteristics of the waste in light of materials or processes used.

(4) If the waste is determined to be hazardous, the generator shall refer to 40 CFR Parts 261, 262, 264, 265, 266, 268, and 273 for possible exclusions or restrictions pertaining to management of each specific waste.

(c) EPA identification numbers.

(1) Each Kansas or EPA generator shall apply for and obtain an EPA identification number from the secretary before treating, storing, disposing, transporting, or offering for transportation any hazardous waste. Each generator who has not received an EPA identification number shall apply to the secretary using a form supplied by the department. If there is a change in the information originally submitted to obtain an EPA identification number, the generator shall update that information. The generator shall submit these changes to the secretary on KDHE form 8700-12.

(2) Each Kansas or EPA generator shall offer hazardous waste only to transporters or to treatment, storage, or disposal facilities that have an EPA identification number.

(d) Manifest requirements.

(1) General requirements. Each Kansas or EPA generator who transports hazardous waste or offers hazardous waste for transportation for off-site treatment, storage, or disposal shall prepare and use a manifest with the OMB control number 2050-0039 that complies with EPA form 8700-22 and, if necessary, form 8700-22A, according to the instructions included in the appendix to 40 CFR Part 262. The generator shall comply with all of the following requirements.

(A) Each generator shall designate on the manifest one facility permitted to handle the waste described on the manifest.

(B) Any generator may also designate on the manifest one alternate facility permitted to handle the waste if an emergency prevents delivery of the waste to the primary designated facility.

(C) If the transporter is unable to deliver the hazardous waste to the designated facility or the alternate facility, the generator shall either des-

ignite another facility or instruct the transporter to return the waste.

(2) Acquisition of manifests. If the shipment is to be transported to a state requiring use of that state's manifest, then the generator shall use the manifest of the consignment state. If the consignment state does not supply the manifest, then the generator may obtain the manifest from any source.

(3) Number of copies. At a minimum, the manifest shall have sufficient copies to provide the generator, each transporter, and the owner or operator of the designated facility with one copy each for the records and another copy to be returned to the generator.

(4) Use of the manifest. The generator shall perform all of the following:

(A) Sign the manifest certification by hand;

(B) obtain the handwritten signature of the initial transporter and the date of acceptance on the manifest;

(C) retain one copy for the generator's records; and

(D) give the transporter the remaining copies of the manifest.

(5) Water shipments. When bulk shipments of hazardous waste are transported within the United States solely by water, the generator shall send three copies of the manifest, dated and signed in accordance with this subsection, to the owner or operator of the designated facility or the last bulk water transporter to handle the waste in the United States if exported by water. Copies of the manifest shall not be required for any transporter.

(6) Rail shipments. When rail shipments of hazardous waste within the United States originate at the site of generation, the generator shall send at least three copies of the manifest, dated and signed in accordance with this subsection, to one of the following:

(A) The next nonrail transporter, if any;

(B) the designated facility, if transported solely by rail; or

(C) the last rail transporter to handle the waste in the United States, if exported by rail.

(7) Manifest exemption. The requirements of this subsection shall not apply to Kansas generators when the waste is reclaimed under a contractual agreement that meets all of the following requirements:

(A) The type of waste and frequency of shipments are specified in the agreement.

(B) The vehicle used to transport the waste to the recycling facility and to deliver regenerated material back to the generator is owned and operated by the reclaimer of the waste.

(C) The generator maintains a copy of the reclamation agreement for at least three years after termination or expiration of the agreement.

(e) Pretransport requirements.

(1) Packaging. Before transporting hazardous waste or offering hazardous waste for transportation off-site, each Kansas or EPA generator shall package the waste in accordance with 49 CFR Parts 173, 178, and 179.

(2) Labeling. Before transporting or offering hazardous waste for transportation off-site, each Kansas or EPA generator shall label each package in accordance with 49 CFR Part 172.

(3) Marking.

(A) Before transporting or offering hazardous waste for transportation off-site, each Kansas or EPA generator shall mark each package of hazardous waste in accordance with 49 CFR Part 172.

(B) Before transporting hazardous waste or offering hazardous waste for transportation off-site, each Kansas or EPA generator shall mark each container of 110 gallons or less used in transportation in accordance with the requirements of 40 CFR 262.32(b).

The required statement and information shall be displayed in accordance with the requirements of 49 CFR 172.304.

(4) Placarding. Before transporting hazardous waste or offering hazardous waste for transportation off-site, each Kansas or EPA generator shall placard or offer the initial transporter the appropriate placards according to 49 CFR Part 172, subpart F.

(f) Recordkeeping and reporting.

(1) Recordkeeping.

(A) Each Kansas or EPA generator shall keep a copy of each signed manifest. This signed copy shall be retained as a record for at least three years from the date the waste was accepted by the initial transporter or until receipt of a copy signed by a representative of the designated facility that received the waste. The copy signed by the designated facility shall be retained as a record for at least three years from the date on which the waste was accepted by the initial transporter.

(B) Each Kansas or EPA generator shall keep a copy of each exception report required by paragraph (4) of this subsection, and each EPA generator shall keep a copy of each biennial report

required by paragraph (2) of this subsection. Each Kansas or EPA generator shall keep these reports for a period of at least three years from the due date of the reports.

(C) Each Kansas or EPA generator shall keep records of all test results, waste analyses, and other determinations for at least three years from the date that the waste was last sent for on-site or off-site treatment, storage, or disposal.

(D) The periods for retention referred to in this regulation shall be extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the secretary.

(2) Biennial report.

(A) Each EPA generator shall prepare and submit a single copy of a biennial report to the secretary by March 1 of each even-numbered year. The EPA generator shall submit the biennial report on a form provided by the department and shall cover generator activities during the previous calendar year or years. The biennial report shall include the following information:

(i) The EPA identification number, name, and address of the generator;

(ii) the calendar year or years covered by the report;

(iii) the EPA identification number, name, and address for each off-site treatment, storage, or disposal facility to which waste was shipped. For exported shipments, the report shall give the name and address of the foreign facility;

(iv) the name and EPA identification number of each transporter used;

(v) a description of the waste and the EPA hazardous waste number, DOT hazard class, and quantity of each hazardous waste shipped off-site. This information shall be listed by EPA identification number of each off-site treatment, storage, or disposal facility to which waste was shipped;

(vi) a description of the efforts undertaken to reduce the volume and toxicity of waste generated;

(vii) a description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent that this information is available; and

(viii) the certification signed by the generator or authorized representative.

(B) Each generator who treats, stores, or disposes of hazardous waste on-site shall submit a biennial report covering those wastes in accord-

ance with the provisions of 40 CFR Parts 270, 264, 265, and 266.

(3) Annual monitoring fee reports. Each EPA generator shall prepare and submit a report to the secretary by March 1 of each year that details the total quantities of hazardous waste produced during the previous calendar year. The generator shall pay and submit the monitoring fee required by K.A.R. 28-31-10(g) with the report.

(4) Exception reporting.

(A) Each Kansas or EPA generator who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 35 days of the date on which the waste was accepted by the initial transporter, shall contact the transporter, the owner or operator of the designated facility, or both, to determine the status of the hazardous waste.

(B) Each Kansas or EPA generator who has not received a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 45 days of the date on which the waste was accepted by the initial transporter shall submit an exception report to the secretary. The exception report shall include both of the following:

(i) A legible copy of the manifest for which the generator does not have confirmation of delivery; and

(ii) a cover letter signed by the generator or authorized representative explaining the efforts taken to locate the hazardous waste and the results of those efforts.

(5) Additional reporting. At any time, a generator may be required by the secretary to furnish additional reports concerning the quantities and disposition of hazardous wastes.

(g) Accumulation time for EPA generators. Any EPA generator may accumulate hazardous waste on-site for 90 days or less without a permit and without obtaining interim status, and shall be exempt from all the requirements in 40 CFR Part 265, subparts G and H, except for 265.111 and 265.114, if all of the following conditions are met:

(1) The waste is handled using one or more of the following methods:

(A) Placed in containers and the generator complies with 40 CFR Part 265, subparts I, AA, BB, and CC;

(B) placed in tanks and the generator complies with 40 CFR Part 265, subparts J, AA, BB, and CC, except sections 265.197(c) and 265.200;

(C) collected on drip pads and the generator complies with 40 CFR 262.34(a) (1) (iii); or

(D) placed in containment buildings and the generator complies with 40 CFR 262.34(a)(1)(iv).

(2) The date upon which each period of accumulation begins is clearly marked and visible for inspection on each container and tank.

(3) While being accumulated on-site, each container and tank is labeled or marked clearly with the words "Hazardous Waste."

(4) The generator complies with the requirements in 40 CFR Part 265, subparts C and D, with 265.16, and, if conducting treatment, with 268.7(a) (5).

(h) Hazardous waste accumulation by Kansas generators.

Any Kansas generator may accumulate hazardous waste on-site without a permit, interim status, or time restrictions, and shall be exempt from all the requirements in 40 CFR Part 265, subparts G and H, except for 265.111 and 265.114, if all of the following conditions are met:

(1) The quantity of waste accumulated never exceeds 1,000 kilograms of hazardous waste or 1 kilogram of acutely hazardous waste. If at any time more than these quantities are accumulated, all of those accumulated wastes shall be subject to regulations that are applicable to EPA generators.

(2) The waste is handled using one or more of the following methods:

(A) Placed in containers and the generator complies with 40 CFR Part 265 subpart I, except 265.176 and 265.178; or

(B) placed in tanks and the generator complies with the requirements of 265.201, except 265.201(a), in 40 CFR Part 265, subpart J.

(3) The date upon which each period of accumulation begins is clearly marked and visible for inspection on each container and tank.

(4) While being accumulated on-site, each container and tank is labeled or clearly marked with the words "Hazardous Waste."

(5) The generator complies with the requirements of 40 CFR Part 265, subpart C, and 40 CFR 268.7(a)(5).

(6) At least one employee who is designated as the emergency coordinator is either on the premises or on call at all times with the responsibility for coordinating all emergency response measures specified in this subsection. For the purposes of this regulation, "on call" means that the emergency coordinator is available to respond to an

emergency by reaching the facility within a short period of time.

(7) All of the following information is posted next to at least one telephone that is accessible, with little or no delay, by employees during an emergency:

(A) The name and telephone number of the emergency coordinator;

(B) the location of fire extinguishers and spill-control material, and if present, fire alarms; and

(C) the telephone number of the fire department unless the facility has a direct alarm.

(8) Each employee is thoroughly familiar with proper waste handling and emergency procedures that are relevant to the employee's responsibilities during normal facility operations and emergencies.

(9) The emergency coordinator or designee is prepared to respond to any emergencies that arise. The appropriate responses shall be the following:

(A) In the event of a fire, the emergency coordinator or designee shall call the fire department or attempt to extinguish the fire using a fire extinguisher.

(B) In the event of a spill, the emergency coordinator or designee shall contain the flow of hazardous waste to the extent possible and, as soon as is practicable, clean up the hazardous waste and any contaminated materials or soil.

(C) In the event of a fire, explosion, or other release that could threaten human health outside the facility, or when it appears that a spill has reached surface water, the emergency coordinator shall immediately notify the national response center using the 24-hour toll-free number 800-424-8802.

All reports to the national response center shall contain the following information:

(i) The name, address, and U.S. EPA identification number of the generator;

(ii) the date, time, and type of incident;

(iii) the quantity and type of hazardous waste involved in the incident;

(iv) the extent of any injuries; and

(v) the estimated quantity and disposition of recovered materials, if any.

(i) Extension of accumulation time. Each EPA generator who accumulates hazardous waste for more than 90 days shall be considered an operator of a storage facility and shall be subject to the requirements of 40 CFR Parts 124, 264, 265, and 270, unless granted an extension to the 90-day pe-

riod. This extension may be granted if hazardous wastes need to remain on-site for longer than 90 days due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days may be granted by the secretary upon written request by the EPA generator. Additional extensions not to exceed 30 days may be granted if the circumstances continue to be valid.

(j) Satellite accumulation areas.

(1) Any Kansas or EPA generator may accumulate as many as 55 gallons of each type of hazardous waste or one quart of acutely hazardous waste in no more than one container at or near any point of generation where wastes initially accumulate, and that is under the control of the operator of the process generating the waste, without a permit or interim status and without complying with subsections (g) and (h), if the generator performs both of the following:

(A) Complies with 40 CFR 265.171, 265.172, and 265.173(a); and

(B) marks the containers with the words "Hazardous Waste."

(2) At the time the generator accumulates more than the amounts listed in this subsection at any satellite accumulation area, the date shall be placed on the full container. This date shall become the accumulation start date for this container, and the generator shall move the full container to the hazardous waste storage area within three days. The empty container in which waste is accumulated at the satellite area shall be managed in accordance with paragraph (1) of this subsection.

(k) Inspection requirement. Each Kansas or EPA generator shall document weekly inspections of hazardous waste storage areas and daily inspections of tanks in accordance with 40 CFR 265.15(d) and 40 CFR 265.195.

(l) Transportation restrictions. Each Kansas or EPA generator shipping hazardous waste or offering hazardous waste for transport shall use only a transporter who has properly registered with the department according to K.A.R. 28-31-6.

(m) Small quantity generator requirements. Small quantity generators shall be subject to the following requirements:

(1) If at any time more than a total of 1,000 kilograms of hazardous waste or one kilogram of acutely hazardous waste is accumulated, all of those accumulated wastes shall be subject to regulations applicable to EPA generators. Upon exceeding 1,000 kilograms of hazardous waste or

one kilogram of acutely hazardous waste, all requirements of subsection (g) of this regulation shall apply to the generator.

(2) Each small quantity generator who accumulates 25 kilograms or more of hazardous waste shall either recycle, treat, or dispose of the waste in an acceptable on-site facility, or ensure delivery to an off-site hazardous waste treatment, storage, or disposal facility, or to some other waste management facility approved by the secretary, and shall be subject to the following requirements:

(A) The pretransport requirements of subsection (e) of this regulation;

(B) the dating and marking requirements for containers and tanks in paragraphs (h)(2), (3), and (4) of this regulation; and

(C) the inspection requirements of subsection (k) of this regulation.

(3) Each small quantity generator who accumulates up to 25 kilograms of hazardous waste may either treat or dispose of hazardous waste in an acceptable on-site facility, or ensure delivery to an off-site storage, treatment, or disposal facility. In either case, the facility shall meet at least one of the following requirements:

(A) Be permitted to manage hazardous waste;

(B) be operating under interim status;

(C) be permitted to manage municipal solid waste; or

(D) beneficially treat, use or reuse, or legitimately recycle or reclaim its waste.

(n) Acutely hazardous waste requirements.

(1) All quantities of acutely hazardous waste shall be subject to this regulation and other regulations in article 31 applicable to EPA generators regarding transportation, treatment, storage, and disposal of hazardous waste if generated in one of the following quantities:

(A) A total, in any single calendar month, of one kilogram or more of acutely hazardous waste; or

(B) a total, in any single calendar month, of 25 kilograms or more of any residue or contaminated soil, waste, or other debris resulting from the cleanup of a spill, into or on any land or water, of any acutely hazardous waste.

(2) If at any time acutely hazardous waste is accumulated in quantities described in paragraph (n)(1), all of those accumulated wastes shall be subject to the requirements of this regulation and other regulations in article 31 applicable to EPA generators regarding transportation, treatment, storage, and disposal of hazardous waste. Upon

meeting these quantities, all requirements of subsection (g) shall apply to the generator.

(o) Quantity determinations.

(1) In determining the quantity of hazardous waste generated each calendar month, a generator shall not include either of the following:

(A) Hazardous waste when it is removed from on-site storage; or

(B) hazardous waste produced by on-site treatment including reclamation of hazardous waste, if the hazardous waste that is treated or reclaimed is counted each time before treatment or reclamation.

(2) Hazardous waste that is subject to the requirements of 40 CFR 261.6(b) and (c) and 40 CFR Part 266, subparts C and F, shall be included in the quantity determination and shall be subject to the requirements of this regulation.

(p) Mixtures of hazardous waste.

(1) Whenever two or more hazardous wastes are mixed together, the resulting mixture shall be regulated as follows:

(A) If a listed hazardous waste as defined by 40 CFR Part 261, subpart D is mixed with other listed hazardous waste, the resulting mixture shall be identified for purposes of generation, transportation, storage, treatment, and disposal by all listed hazardous waste numbers contained in the mixture.

(B) If a characteristic hazardous waste as defined by 40 CFR Part 261, subpart C is mixed with other characteristic hazardous waste, the resulting mixture shall be identified for purposes of generation, transportation, storage, treatment, and disposal by all characteristic hazardous waste numbers contained in the mixture.

(i) Any person may demonstrate that mixing two different characteristic hazardous wastes is a satisfactory treatment method that results in the mixture no longer exhibiting any characteristic of hazardous waste.

(ii) Upon submittal of an acceptable demonstration, written approval indicating that the resulting mixture is not regulated as hazardous waste may be granted by the secretary.

(C) If a listed hazardous waste as defined by 40 CFR Part 261, subpart D is mixed with characteristic hazardous waste as defined by 40 CFR Part 261, subpart C, the resulting mixture shall be identified for purposes of generation, transportation, storage, treatment, and disposal by all listed and characteristic hazardous waste numbers contained in the mixture.

(2) Whenever hazardous waste is mixed with solid waste or nonhazardous material, other than used oil, the resulting mixture shall be regulated as follows:

(A) For characteristic hazardous waste as defined by 40 CFR Part 261, subpart C, the resulting mixture shall remain regulated as a characteristic hazardous waste.

(i) Any person may demonstrate that mixing characteristic hazardous waste with solid waste or nonhazardous materials is a satisfactory treatment method that results in the mixture no longer exhibiting any characteristic of hazardous waste.

(ii) Upon submittal of an acceptable demonstration, written approval indicating that the resulting mixture is not regulated as hazardous waste may be granted by the secretary.

(B) For listed hazardous waste, as defined by 40 CFR Part 261, subpart D, the resulting mixture shall remain regulated as a listed hazardous waste unless it is listed solely because it exhibits one or more characteristics of hazardous waste identified in 40 CFR Part 261, subpart C and the resulting mixture no longer exhibits these characteristics.

(3) Hazardous waste that is mixed with used oil shall be regulated as follows:

(A) If hazardous waste from a small quantity generator is mixed with used oil, the resulting mixture shall be subject to regulation as used oil under K.A.R. 28-31-16.

(B) If a Kansas or EPA generator mixes a characteristic or listed hazardous waste with used oil, the resulting mixture shall remain identified as a characteristic or listed hazardous waste.

(4) Small quantity generators may mix their hazardous waste with nonhazardous waste or other material and shall remain subject to the requirements of subsection (m) even though the resultant mixture exceeds the quantity limitations of subsection (m), unless the mixture meets any of the characteristics of hazardous waste identified in 40 CFR Part 261.

(q) Exports of hazardous waste. Exporters of hazardous waste shall be subject to the requirements of 40 CFR Part 262, subpart E.

(r) Imports of hazardous waste. Importers of hazardous waste shall be subject to the requirements of 40 CFR Part 262, subpart F.

(s) Farmers. Farmers disposing of pesticide shall be subject to the requirements of 40 CFR 262, subpart G.

In this regulation, each reference to a federal regulation shall be deemed to refer to that federal

regulation as adopted by reference in K.A.R. 28-31-1. (Authorized by and implementing K.S.A. 2001 Supp. 65-3431; effective, E-82-20, Nov. 4, 1981; effective May 1, 1982; amended, T-84-5, Feb. 10, 1983; amended May 1, 1984; amended, T-86-32, Sept. 24, 1985; amended May 1, 1986; amended May 1, 1987; amended May 1, 1988; amended Feb. 5, 1990; amended April 25, 1994; amended March 22, 1996; amended June 4, 1999; amended Sept. 20, 2002.)

28-31-5. Underground burial of hazardous waste prohibited. (a) Exception requests to the prohibition against underground burial of hazardous waste. Any person may petition the secretary to be granted an exception to the prohibition against underground burial of hazardous waste. Each request shall include the following:

(1) A complete chemical and physical analysis of the waste;

(2) a list and description of all technologically feasible methods which could be considered to treat, store or dispose of the waste;

(3) for each method described in paragraph (2), an economic analysis based upon a 30-year time period. The analysis shall determine the costs associated with treating, storing, disposing and monitoring the waste during this time period; and

(4) a demonstration that no economically reasonable or technologically feasible methodology exists for the disposal of that specific hazardous waste except for underground burial.

(b) Public notice and hearing for exception requests. Upon receipt of a request for an exception to the prohibition against underground burial of hazardous waste, the following actions shall be initiated:

(1) The request shall be reviewed by the department to determine if it is complete and does not contain any deficiencies. If the request is not adequate, the person shall be notified of the specific deficiencies.

(2) Upon receipt of a complete request, a notice shall be published by the secretary once per week for three consecutive weeks in a newspaper having major circulation in the county in which the exception is requested. The required published notice shall:

(A) identify the applicant and the specific waste along with a description of proposed disposal methods;

(B) include a map indicating the location of proposed underground burial;

(C) include the address of the location where the application and related documents may be reviewed and of the location where copies may be obtained; and

(D) describe the procedure by which the request will be reviewed, including a date and place for a public hearing.

(3) The public hearing shall be scheduled no sooner than 30 days from the date of the first public notice.

(4) A copy of the notice shall also be transmitted by the secretary to the clerk of any city which is located within three miles of the proposed underground burial site.

(5) A notice shall also be published by the secretary in the Kansas Register once per week for three consecutive weeks. That notice shall contain the same information required above.

(6) A public hearing shall be conducted at a location near the proposed underground burial facility.

(A) A hearing officer who is responsible for its scheduling and orderly conduct may be designated by the secretary.

(B) Any person may submit oral or written comments and data concerning the exception request. Reasonable limits may be set upon the time allowed for oral statements, and the submission of statements in writing may be required.

(C) The public comment period shall automatically be extended to the close of any public hearing. The hearing officer may also extend the comment period by so stating at the hearing.

(D) A tape recording or written transcript of the hearing shall be made available to the public.

(E) The hearing officer shall submit a report to the secretary detailing all written and oral comments submitted during the public comment period. The report may also recommend findings and determinations.

(c) Approval or denial of exception request.

(1) If it is determined that the exception request should be approved, an order shall be issued by the secretary. The order may require such conditions as the secretary deems necessary to protect public health and environment.

(2) If it is determined that there is not sufficient evidence to approve the request, the applicant shall be notified of the reasons why the request is denied.

(3) A public notice of the final decision to grant or deny the exception request shall be published in the newspaper having major circulation in the

county in which the exception was requested and in the Kansas Register.

(4) A copy of the final decision shall be transmitted to the clerk of any city which is located within three miles of the proposed underground burial site by the secretary. (Authorized by and implementing K.S.A. 65-3431; and K.S.A. 65-3458; effective, E-82-20, Nov. 4, 1981; effective May 1, 1982; amended, T-86-6, March 22, 1985; amended, T-86-32, Sept. 24, 1985; amended May 1, 1986; amended May 1, 1987; amended Feb. 5, 1990; amended April 25, 1994.)

28-31-6. Standards for transporters of hazardous waste and used oil. Subsections (a) through (f) of this regulation shall apply to each person that transports at any time more than 25 kilograms of hazardous waste or more than one kilogram of acutely hazardous waste, except small quantity generators transporting to a Kansas household hazardous waste facility that has a permit, issued by the secretary, to handle small quantity generator waste. Subsections (b) through (d) of this regulation shall apply to each person that is subject to the requirements for used oil transporters of 40 CFR 279.40 and 279.42.

(a) General requirements. Transporters of hazardous waste shall comply with the requirements of 40 CFR Part 263, except 263.10(a) and 263.20(h).

(b) Registration. Each person transporting hazardous waste or used oil within, into, out of, or through Kansas shall register with the secretary.

(1) The transporter shall submit the registration application on forms provided by the department.

(2) The transporter shall obtain written acknowledgement from the secretary that registration is complete before transporting hazardous waste or used oil within, into, out of, or through Kansas.

(3) The transporter shall carry a copy of the written acknowledgment in all vehicles transporting hazardous waste or used oil and shall provide the written acknowledgment for review upon request.

(c) Insurance requirements. Each transporter shall secure and maintain liability insurance on all vehicles transporting hazardous waste or used oil in Kansas.

(1) The limits of insurance shall not be less than \$1 million per person and \$1 million per occurrence for bodily injury or death and \$1 million

for all damage to the property of others. When combined bodily injury or death and property damage coverage are provided, the total limits shall not be less than \$1 million.

(2) If any coverage is reduced or canceled, the transporter shall notify the secretary in writing at least 35 days before the effective date of that action.

(3) The transporter shall, before the expiration date of the policy, provide the secretary with proof of periodic renewal in the form of a certificate of insurance showing the monetary coverage and the expiration date.

(d) Denial, suspension, or revocation of registration. Any application may be denied and any transporter's registration may be revoked or suspended by written notice if the secretary determines that one or more of the following apply:

(1) The transporter failed or continues to fail to comply with any of the provisions of the air, water, or waste statutes relating to environmental protection or to the protection of public health, including regulations issued thereunder in this or any other state or by the federal government, or any condition of any permit or license issued by the secretary.

(2) The transporter has shown a lack of ability or intention to comply with one or more provisions of any law referred to in this subsection, or any regulation or order or permit issued pursuant to any such law, as indicated by past or continuing violations.

(3) One or more of the following is a principal of another corporation that would not be eligible for registration:

(A) The transporter;

(B) a person who holds an interest in the transporter;

(C) a person who exercises total or partial control of the transporter; or

(D) a person who is a principal of the parent corporation.

(e) Exemption from the manifesting requirement. Each transporter transporting hazardous waste from a Kansas generator shall be exempt from the requirements of 40 CFR Part 263, subpart B, if all the following conditions are met:

(1) The waste is transported pursuant to a reclamation agreement as provided for in K.A.R. 28-31-4(d)(7).

(2) The transporter records, on a log or shipping paper, the following information for each shipment:

(A) The name, address, and EPA identification number of the generator of the waste;

(B) the quantity of the waste accepted;

(C) all shipping information required by the U.S. department of transportation; and

(D) the date the waste is accepted.

(3) The transporter carries this record when transporting the waste to the reclamation facility.

(4) The transporter retains these records for a period of at least three years after termination or expiration of the agreement.

(f) Transportation restrictions. Each transporter shall collect or transport hazardous waste only for generators or treatment, storage, or disposal facilities that have provided proper notification in accordance with K.A.R. 28-31-4(c) and 40 CFR 264.11 and 265.11.

In this regulation, each reference to a federal regulation shall be deemed to refer to that federal regulation as adopted by reference in K.A.R. 28-31-1. (Authorized by and implementing K.S.A. 2001 Supp. 65-3431; effective, E-82-20, Nov. 4, 1981; effective May 1, 1982; amended, T-84-5, Feb. 10, 1983; amended May 1, 1984; amended, T-86-32, Sept. 24, 1985; amended May 1, 1986; amended May 1, 1987; amended May 1, 1988; amended Feb. 5, 1990; amended April 25, 1994; amended June 4, 1999; amended Sept. 20, 2002.)

28-31-7. Standards for routing of hazardous waste. (a) Standards for preferred routes. Each transporter of hazardous waste shall ensure that any vehicle containing hazardous waste is operated over routes that minimize risk to public health and safety. The transporter shall consider available information on accident rates, transit time, population density and activities, time of day, and day of week during which transportation will occur to select a preferred route. Any transporter of hazardous waste may deviate from a preferred route under any of the following circumstances:

(1) Emergency conditions which make continued use of the preferred route unsafe;

(2) To make necessary rest, fuel, and vehicle repair stops; or

(3) To the extent necessary to pickup, deliver, or transfer hazardous wastes.

(b) Transporter responsibility. Each transporter shall bear the responsibility of confining the carriage of hazardous wastes to preferred routes. Unless notice to the contrary is given to the transporter or published in the "Kansas Register", all

portions of the major highway system may be used. The major highway system is considered to be all interstate routes, U.S. highways, state highways, and temporary detours designated by the Kansas department of transportation. An interstate system bypass or beltway around a city shall be used when available. (Authorized by and implementing K.S.A. 1984 Supp. 65-3431; effective, E-82-20, Nov. 4, 1981; effective May 1, 1982; amended, T-85-42, Dec. 19, 1984; amended May 1, 1985.)

28-31-8. Standards for hazardous waste storage, treatment, and disposal facilities. (a) General requirements. Each owner or operator of a facility that stores, treats, or disposes of hazardous waste shall comply with the requirements of 40 CFR Parts 264 and 265.

(b) Marking requirements. Each operator of a hazardous waste container or tank storage facility shall mark all containers and tanks in accordance with the standards of K.A.R. 28-31-4(g)(2) and (3).

(c) Notice in deed to property. Each owner of property on which a hazardous waste treatment, storage, or disposal facility is located shall record, in accordance with Kansas law, a notice with the county register of deeds where the property is located that the land has been used to manage hazardous waste and that all records regarding permits, closure, or both are available for review at the department.

(d) Restrictive covenants and easements.

(1) Each owner of property on which a hazardous waste treatment, storage, or disposal facility is located may be required by the secretary to execute and file with the county register of deeds a restrictive covenant to run with the land that shall specify the uses that may be made after closure and require all of the following:

(A) All future uses of the property after closure shall be conducted in a manner that preserves the integrity of waste containment systems designed, installed, and used during operation of the disposal areas, or installed or used during the post-closure maintenance period.

(B) The owner or tenant and the subsequent owners or tenants shall preserve and protect all permanent survey markers and benchmarks installed at the facility.

(C) The owner or tenant and the subsequent owners or tenants shall preserve and protect all

environmental monitoring stations installed at the facility.

(D) The owner or tenant, subsequent property owners or tenants, and any person granted easement to the property shall provide written notice to the secretary during the planning of any improvement to the site and shall receive approval from the secretary before commencing any of the following:

- (i) Excavation or construction of permanent structures or drainage ditches;
- (ii) alteration of contours;
- (iii) removal of waste materials stored on the site;
- (iv) changes in vegetation grown on areas used for waste disposal;
- (v) the production or sale of food chain crops grown on land used for waste disposal; or
- (vi) removal of security fencing, signs, or other devices installed to restrict public access to waste storage or disposal areas.

(2) The owner of the property on which a hazardous waste treatment, storage, and disposal facility is or has been located may be required by the secretary to execute an easement stating that the department, its duly authorized agents, or contractors employed by or on behalf of the department may enter the premises to accomplish any of the following:

(A) Complete items of work specified in a site closure plan required to be submitted by the federal regulations referenced in subsection (a) of this regulation;

(B) perform any item of work necessary to maintain or monitor the area during the post-closure period; or

(C) sample, repair, or reconstruct environmental monitoring stations constructed as part of the site operating or postclosure requirements.

(3) Each offer or contract for the conveyance of easement, title, or other interest to real estate used for treatment, storage, or disposal of hazardous waste shall disclose all terms, conditions, and provisions for care and subsequent land uses that are imposed by these regulations or the site permit authorized and issued under K.S.A. Supp. 65-3431, and amendments thereto. Conveyance of title, easement, or other interest in the property shall contain provisions for the continued maintenance of waste containment and monitoring systems.

(4) All covenants, easements, and other documents related to this regulation shall be perma-

nent, unless extinguished by agreement between the property owner and the secretary. Recording fees shall be paid by the owner of the property.

(e) Hazardous waste injection wells.

(1) Each hazardous waste injection well shall be designed, constructed, and operated to comply with applicable requirements of article 46 of these regulations.

(2) Wastes received from multiple generators by a hazardous waste facility, even if treated at the hazardous waste facility before injection, shall be batch-tested and the chemical composition confirmed by laboratory analyses before injection.

(A) Laboratory analysis of the composition of homogeneous and continuously generated injection fluids generated and disposed at a single site may be allowed on a monthly basis.

(B) The results of the laboratory analysis shall be the basis upon which the secretary determines whether or not injection of the fluids may occur.

(3) Monitoring shall be required for each constituent that was approved for injection. Monitoring of specified indicator constituents rather than the approved list of constituents may be allowed by the secretary, and monitoring of other constituents may be required as deemed necessary.

(f) Environmental monitoring. All samples analyzed in accordance with 40 CFR Parts 264 and 265, subparts F and G shall be conducted by a laboratory certified for these analyses by the secretary, except that analyses of time-sensitive parameters, including pH, temperature, and specific conductivity, shall be conducted at the time of sampling if possible.

(g) For hazardous waste received at a treatment, storage, or disposal facility with the intent of burning for destruction or energy recovery, all quantification analyses performed for the purpose of complying with permit conditions shall be performed by a laboratory certified for these analyses by the secretary.

In this regulation, each reference to a federal regulation shall be deemed to refer to that federal regulation as adopted by reference in K.A.R. 28-31-1. (Authorized by and implementing K.S.A. 2001 Supp. 65-3431; effective, E-82-20, Nov. 4, 1981; effective May 1, 1982; amended, T-84-5, Feb. 10, 1983; amended May 1, 1984; amended, T-86-32, Sept. 24, 1985; amended May 1, 1986; amended May 1, 1987; amended May 1, 1988; amended Feb. 5, 1990; amended April 25, 1994; amended June 4, 1999; amended Sept. 20, 2002.)

28-31-8a. (Authorized by and implementing K.S.A. 65-3431, as amended by L. 1987, Ch. 295, Sec. 6; effective, T-85-42, Dec. 19, 1984; effective May 1, 1985; amended May 1, 1987; amended May 1, 1988; amended Feb. 5, 1990; revoked April 6, 1992.)

28-31-8b. Standards for the management of specific hazardous wastes and specific types of hazardous waste management facilities. Each person managing any of the specific hazardous wastes or operating any of the specific types of hazardous waste management facilities listed below shall comply with the requirements of 40 CFR Part 266:

- (a) Recyclable materials used in a manner constituting disposal;
- (b) recyclable materials utilized for precious metal recovery;
- (c) spent lead-acid batteries being reclaimed;
- (d) hazardous waste burned in boilers and industrial furnaces; and
- (e) military munitions.

In this regulation, each reference to a federal regulation shall be deemed to refer to that federal regulation as adopted by reference in K.A.R. 28-31-1. (Authorized by and implementing K.S.A. 2001 Supp. 65-3431; effective Feb. 5, 1990; amended April 25, 1994; amended June 4, 1999; amended Sept. 20, 2002.)

28-31-9. Hazardous waste storage, treatment, and disposal facility permits. (a) General requirements. Hazardous waste storage, treatment, and disposal facility permits shall be subject to the requirements of 40 CFR Part 270, except subpart H, and the requirements of 40 CFR Part 124, subparts A and B.

(b) Background investigation. Before submitting any application for a hazardous waste facility permit, the applicant shall submit a disclosure statement on forms provided by the department. The disclosure statement shall include the following information:

- (1) The name of the corporation;
- (2) past corporate names;
- (3) the place or places of incorporation;
- (4) the names of officers;
- (5) the names of former officers and directors;
- (6) partnership or joint venture information;
- (7) ownership and debt liability;
- (8) subsidiaries and stock holdings;
- (9) financial history;
- (10) employee data;

- (11) experience and credentials;
- (12) licenses and permits;
- (13) environmental violations history;
- (14) environmental judgments and litigation; and
- (15) criminal proceedings involving the applicant or the corporation.

In this regulation, each reference to a federal regulation shall be deemed to refer to that federal regulation as adopted by reference in K.A.R. 28-31-1. (Authorized by and implementing K.S.A. 2001 Supp. 65-3431; effective, E-82-20, Nov. 4, 1981; effective May 1, 1982; amended, T-84-5, Feb. 10, 1983; amended May 1, 1984; amended, T-86-32, Sept. 24, 1985; amended May 1, 1986; amended May 1, 1987; amended May 1, 1988; amended Feb. 5, 1990; amended April 25, 1994; amended June 4, 1999; amended Sept. 20, 2002.)

28-31-10. Hazardous waste monitoring fees. (a) Hazardous waste storage facilities. The owner or operator of each hazardous waste storage facility shall pay to the department an annual monitoring fee before January 1 of each year. This fee shall be based on the following schedule:

- (1) On-site storage facility \$7,500
- (2) Off-site storage facility \$8,000

(b) Hazardous waste treatment facilities. The owner or operator of each hazardous waste treatment facility shall pay to the department an annual monitoring fee before January 1 of each year. This fee shall be based on the following schedule:

- (1) On-site nonthermal treatment facility \$7,500
- (2) Off-site nonthermal treatment facility \$8,000
- (3) On-site thermal treatment facility \$8,000
- (4) Off-site thermal treatment facility \$12,000
- (5) Incinerator facility \$12,000

(c) Hazardous waste disposal facilities. The owner or operator of each hazardous waste disposal facility shall pay to the department an annual monitoring fee before January 1 of each year. This fee shall be based on the following schedule:

- (1) On-site landfill or underground injection well \$10,000
- (2) Off-site landfill or underground injection well \$15,000

(d) Facilities subject to postclosure care. The owner or operator of each hazardous waste storage, treatment, or disposal facility subject to postclosure care shall pay an annual fee. This fee shall become applicable upon receipt by the department.

ment of the certification of closure specified in 40 CFR 264.115 or 40 CFR 265.115. This fee shall be paid to the department before January 1 of each year. This fee shall be based on the following schedule:

Each facility subject to postclosure care \$10,000

(e) Multiple activities. The owner or operator of each facility conducting more than one of the hazardous waste activities addressed in subsections (a), (b), (c), and (d) of this regulation shall pay a single fee. This fee shall be in the amount specified for the activity having the highest fee of those conducted. Each facility that is subject to postclosure care and has no remaining active storage, treatment, or disposal units shall be subject only to the monitoring fee specified in subsection (d).

(f) Hazardous waste transporters. The owner or operator of each hazardous waste transporter shall pay to the department an annual monitoring fee. The hazardous waste transporter shall pay this fee when the transporter registers with the department in accordance with K.A.R. 28-31-6, and before January 1 of each year thereafter. This fee shall be based on the following schedule:

Transporter \$300

(g) Hazardous waste generators.

(1) Before March 1 of each year, each EPA generator shall pay to the department an annual monitoring fee for all hazardous waste generated during the previous calendar year. This fee shall be based on the following schedule:

Total Yearly Quantity General	Monitoring Fee
Less than or equal to 5 tons	\$250
Greater than 5 tons but less than or equal to 50 tons	\$750
Greater than 50 tons but less than or equal to 500 tons	\$2,500
Greater than 500 tons	\$7,500

(2) Each EPA generator that reclaims hazardous waste on-site to recover substantial amounts of energy or materials shall be exempt from payment of monitoring fees for the amount of hazardous waste reclaimed. This exemption shall not apply to hazardous waste residues produced during reclamation.

(3) Before April 1 of each year, each Kansas generator shall pay to the department an annual monitoring fee of \$100.

In this regulation, each reference to a federal regulation shall be deemed to refer to that federal regulation as adopted by reference in K.A.R. 28-

31-1. (Authorized by and implementing K.S.A. 65-3431; effective, E-82-20, Nov. 4, 1981; effective May 1, 1982; amended, T-85-2, Jan. 13, 1984; amended May 1, 1984; amended, T-85-42, Dec. 19, 1984; amended May 1, 1985; amended, T-86-32, Sept. 24, 1985; amended May 1, 1986; amended, T-87-49, Dec. 19, 1986; amended May 1, 1987; amended May 1, 1988; amended April 25, 1994; amended March 22, 1996; amended June 4, 1999; amended Sept. 20, 2002; amended Oct. 29, 2004.)

28-31-10a. Off-site hazardous waste treatment fees. (a) Each off-site hazardous waste treatment facility shall pay fees proportionate to the quantity of hazardous waste treated, subject to the caps set forth in K.S.A. 65-3431, and amendments thereto. These fees shall be based upon the following schedule:

Hazardous Waste Category	Fee
Dioxin	\$20 per ton
Fewer than 5,000 British Thermal Units (BTUs) per pound	\$10 per ton
Equal to or greater than 5,000 BTUs per pound	\$2 per ton

For the purpose of calculating these fees, “dioxin” shall mean hazardous wastes carrying EPA hazardous waste numbers F020, F021, F022, F023, F026, F027, or F028, or any combination of these hazardous waste numbers. “Ton” shall mean 2,000 pounds.

(b) Payment of the treatment fees assessed under subsection (a) of this regulation shall be made quarterly. The quarterly fee shall be paid on or before the last day of April, July, October, and January for the preceding three-month period ending the last day of March, June, September, and December.

(c) Each treatment fee payment shall meet these requirements:

(1) Be made by check or money order made payable to the “Kansas department of health and environment—attention: hazardous waste management fund”; and

(2) be accompanied by a form, furnished by the department and completed by the facility operator. The form shall state the total weight of hazardous wastes treated during the reporting period and shall provide sufficient information to verify findings that a treatment process qualified as material or energy recovery. (Authorized by and implementing K.S.A. 2001 Supp. 65-3431; effective

April 6, 1992; amended July 7, 1997; amended Sept. 20, 2002.)

28-31-11. (Authorized by and implementing K.S.A. 65-3431; effective, E-82-20, Nov. 4, 1981; effective May 1, 1982; amended, T-85-42, Dec. 19, 1984; amended May 1, 1985; amended April 25, 1994; revoked Sept. 20, 2002.)

28-31-12. Inspections. (a) Upon presentation of credentials and stating the purpose of the visit, the following may be performed at any reasonable hour of the day by the secretary or any duly appointed representative:

(1) Enter any factory, plant, construction site, hazardous waste storage, treatment, or disposal facility, or other location where hazardous wastes may potentially be generated, stored, treated, or disposed, and inspect the premises to gather information regarding existing conditions and procedures;

(2) obtain samples of actual or potential hazardous waste from any person or from the property of any person, including samples from any vehicle in which hazardous wastes are being transported;

(3) stop and inspect any vehicle, if there is reasonable cause to believe that the vehicle is transporting hazardous wastes;

(4) conduct tests, analyses, and evaluations of wastes to determine whether or not the wastes are hazardous wastes and whether or not the requirements of these regulations are being met;

(5) obtain samples from any containers or facsimiles of container labels;

(6) inspect and copy any records, reports, information, or test results relating to wastes generated, stored, transported, treated, or disposed;

(7) photograph or videotape any hazardous waste management facility, device, structure, or equipment;

(8) drill test wells or groundwater monitoring wells on the property of any person where hazardous wastes are generated, stored, transported, treated, disposed, discharged, or migrating off-site and obtain samples from the wells; and

(9) conduct tests, analyses, and evaluations of soil, groundwater, surface water, and air to determine whether the requirements of these regulations are being met.

(b) If, during the inspection, unsafe or unpermitted hazardous waste management procedures are discovered, the operator of the facility may be instructed by the secretary's representative to retain and properly store hazardous wastes, perti-

nent records, samples, and other items. These materials shall be retained by the operator until the waste has been identified and the department determines the proper procedure to be used in handling the waste.

(c) When obtaining samples, the facility operator shall be allowed to collect duplicate samples for separate analyses.

(d) During the inspection, all reasonable security, safety, and sanitation measures employed at the facility shall be followed by the secretary's representative.

(e) A written report listing all deficiencies found during the inspection and stating the measures required to correct the deficiencies shall be prepared and sent to the operator. (Authorized by and implementing K.S.A. 1997 Supp. 65-3431; effective May 1, 1982; amended, T-85-42, Dec. 19, 1984; amended May 1, 1985; amended May 1, 1987; amended June 4, 1999.)

28-31-13. Variances. (a) Application. Any person may request a variance from specific provisions of these rules and regulations by submitting an application on a form provided by the department. The applicant shall state the reasons and circumstances that support the request and shall submit all other pertinent data to support the request.

(b) Review and public comment. A tentative decision to grant or deny a variance shall be made within 60 days of receipt of the application by the secretary, and a notice of the tentative decision shall be published in the Kansas register and in a newspaper in the county in which the variance is requested for written public comment. Upon the written request of any interested person, a public meeting may be held to consider comments on the tentative decision. The person requesting a meeting shall state the issues to be raised and shall explain why written comments would not suffice to communicate the person's views. After evaluating all public comments, a final decision shall be made by the secretary, and a notice of the final decision shall be published in the Kansas register. If approved, all conditions and time limitations needed to comply with all applicable state or federal laws or to protect human health or safety or the environment shall be specified by the secretary. The date after which the variance shall no longer be valid shall be provided in the final decision.

(c) Extension of a prior or existing variance. Any

person may submit a request in writing to extend a prior or existing variance. The person shall demonstrate need for continuation of the variance. The variance may be reissued or extended for another period upon finding by the secretary that the reissuance or extension of the variance would not endanger human health or safety or the environment. Review and public comment procedures shall be the same as those specified in subsection (b).

(d) Termination of a variance. Any variance may be terminated, if the secretary finds one or more of the following conditions:

(1) Violation of any requirement, condition, schedule, or limitation of the variance;

(2) operation under the variance that fails to meet the minimum requirements established by state or federal law or regulations; or

(3) operation under the variance that is unreasonably threatening human health or safety or the environment. Written notice of termination shall be provided to the person granted the variance.

(e) Emergency variances. If an incident involving hazardous waste requires immediate action to protect human health or safety or the environment, an emergency variance may be granted by the department from all requirements or any specific requirement of the Kansas hazardous waste regulations. The emergency variance shall remain in effect until the incident no longer presents an immediate hazard to human health or safety or the environment. (Authorized by and implementing K.S.A. 1997 Supp. 65-3431; effective May 1, 1982; amended, T-85-42, Dec. 19, 1984; amended May 1, 1985; amended May 1, 1987; amended June 4, 1999.)

28-31-14. Land disposal restrictions. Land disposal of hazardous waste shall be subject to the requirements of 40 CFR Part 268, as adopted by reference in K.A.R. 28-31-1. (Authorized by and implementing K.S.A. 2001 Supp. 65-3431; effective May 1, 1988; amended Feb. 5, 1990; amended April 25, 1994; amended June 4, 1999; amended Sept. 20, 2002.)

28-31-15. Universal waste. Each owner or operator of a facility that manages universal waste shall comply with the requirements of 40 CFR Part 273, as adopted by reference in K.A.R. 28-31-1. (Authorized by and implementing K.S.A. 2001 Supp. 65-3431; effective June 4, 1999; amended Sept. 20, 2002.)

28-31-16. Used oil. (a) Used oil shall be subject to the management standards specified in 40 CFR Part 279, except for 279.10(b)(3).

(b) Mixtures of used oil and hazardous waste generated by any small quantity generator shall be subject to regulation as used oil in accordance with K.A.R. 28-31-4(p)(3)(A).

(c) No person shall use used oil as a pesticide carrier, sealant, or coating, or for any other similar purpose.

(d) Each seller of more than 500 gallons per year of lubricating oil or other oil in containers for use off the premises shall post and maintain, near the point of sale, durable and legible signs informing the public of the importance of the collection and recycling of used oil. The signs shall indicate how and where used oil can be recycled and shall include locations and hours of operation of conveniently located collection facilities.

(e) The disposal of used oil by discharge into any sewers, storm drainage systems, or surface water or groundwater, or by deposit on or under land shall be prohibited.

In this regulation, each reference to a federal regulation shall be deemed to refer to that federal regulation as adopted by reference in K.A.R. 28-31-1. (Authorized by and implementing K.S.A. 2001 Supp. 65-3431; effective June 4, 1999; amended Sept. 20, 2002.)

Article 32.—TESTING HUMAN BREATH FOR LAW ENFORCEMENT PURPOSES

28-32-1 and 28-32-2. (Authorized by K.S.A. 65-1,107; implementing L. 1986, Ch. 40, Sec. 7; effective, E-74-11, Dec. 14, 1973; effective, E-76-2, Jan. 1, 1975; effective May 1, 1976; amended, T-87-35, Nov. 19, 1986; amended May 1, 1987; revoked March 14, 2008.)

28-32-3. Reserved.

28-32-4 through 28-32-5. (Authorized by K.S.A. 65-1,107; implementing L. 1986, Ch. 40, Sec. 7; effective, E-74-11, Dec. 14, 1973; effective, E-76-2, Jan. 1, 1975; effective May 1, 1976; amended, T-87-35, Nov. 19, 1986; amended May 1, 1987; revoked March 14, 2008.)

28-32-6 through 28-32-7. (Authorized by K.S.A. 65-1,107; implementing L. 1986, Ch. 40, Sec. 7; effective, T-87-35, Nov. 19, 1986; effective May 1, 1987; revoked March 14, 2008.)

28-32-8. Definitions. The following terms and abbreviations as used in this article shall have the following meanings, unless the context requires otherwise.

(a) "Agency" means any law enforcement agency under whose authority evidential breath alcohol tests are performed.

(b) "Agency custodian" means the employee at a certified agency who is responsible for administering the certified agency's EBAT program.

(c) "Alcohol" means any substance containing any form of alcohol, including ethanol, methanol, propanol, and isopropanol.

(d) "Alcohol concentration" means the number of grams of alcohol per 100 milliliters of blood or per 210 liters of breath.

(e) "Certified agency" means a law enforcement agency that meets the requirements of K.A.R. 28-32-9.

(f) "Certified operator" means an individual who meets the requirements of K.A.R. 28-32-10.

(g) "Department" means the Kansas department of health and environment.

(h) "Device custodian" means the certified operator employed by a certified agency who is responsible for oversight of the certified agency's EBAT device.

(i) "Evidential breath alcohol test" and "EBAT" mean a quantitative chemical test for alcohol performed on a sample or samples of breath of an individual suspected of an offense that subjects the individual to the provisions of K.S.A. 8-1001 through K.S.A. 8-1022 and amendments thereto.

(j) "Evidential breath alcohol test device" and "EBAT device" mean an instrument designed to perform a quantitative chemical test for alcohol on a sample of breath of an individual, which yields test results that are admissible as evidence in a court of law.

(k) "Preliminary breath-screening test device" means an instrument designed to perform a qualitative or quantitative chemical test for alcohol on a sample of breath of an individual to determine the presence or absence of alcohol pursuant to K.S.A. 8-1012 and amendments thereto.

(l) "Quality control" means a test of an evidential breath alcohol test device that is administered at the direction of the secretary and that uses a known alcohol standard to evaluate the accuracy of the device.

(m) "Secretary" means the secretary of the Kansas department of health and environment or the secretary's designee. (Authorized by and im-

plementing K.S.A. 2006 Supp. 65-1,107; effective March 14, 2008.)

28-32-9. Agency certification. (a) Application. Each agency head seeking agency certification shall submit an application for agency certification on forms provided by the department.

(b) Certification requirements. Each agency for which certification is sought shall demonstrate to the secretary that all of the following requirements are met:

(1) The agency head shall specify each certified EBAT device proposed for conducting evidential breath alcohol testing.

(2) The agency head shall provide and maintain a roster of the certified operators who perform evidential breath alcohol testing for the agency.

(3) Each certified operator shall use only EBAT devices certified by the secretary.

(4) Each certified operator shall follow the standard operating procedure provided by the secretary for the EBAT device in use.

(5) For quality control, each device custodian or the device custodian's designee shall test each EBAT device once each calendar week using the alcohol standards furnished by the department. The agency custodian shall report the test results to the department monthly on forms provided by the department.

(c) Inspection. An annual inspection of each certified agency shall be made by the secretary or the secretary's designee to ensure compliance with this article.

(d) Certificate term. Each agency that meets the requirements of this regulation shall be issued a certificate by the secretary. Each certificate shall expire at midnight on December 31 of the year of the certificate's issuance.

(e) Certificate renewal. Each agency head of a certified agency seeking to renew the agency's certificate shall submit an application for renewal on forms provided by the department. If an application for renewal is submitted and approved before the expiration date, the certificate shall be considered renewed even if the agency does not have physical possession of the renewal certificate.

(f) Certificate suspension or revocation. The failure to comply with this regulation may be grounds for suspension or revocation of the agency's certification. (Authorized by and implementing K.S.A. 2006 Supp. 65-1,107; effective March 14, 2008.)

28-32-10. Operator certification. (a) Ap-

plication. Each individual seeking certification shall submit an application for operator certification through that individual's certified agency on forms provided by the department. Each applicant shall be a duly appointed Kansas law enforcement officer or have the written endorsement of a supervisory law enforcement officer or an agency custodian.

(b) Certification requirements. Each applicant for operator certification shall be required to successfully complete the course of instruction and written examination approved by the secretary. Additional instruction may be required by the secretary to qualify a certified operator to perform evidential breath alcohol tests using additional EBAT devices.

(c) Certificate term. Each applicant that meets the requirements for conducting evidential breath alcohol testing shall be issued a certificate by the secretary. Each operator certificate that is issued in an even-numbered year shall expire at midnight on December 31 of the next even-numbered year. Each operator certificate that is issued in an odd-numbered year shall expire at midnight on December 31 of the next odd-numbered year.

(d) Certificate renewal. Each certified operator seeking to renew the operator certificate shall submit an application for renewal through that individual's certified agency on forms provided by the department. As a condition of an operator's certificate renewal, each certified operator shall biennially complete EBAT continuing education as approved by the secretary. If an application for renewal is submitted and approved before the certificate's expiration date, the certificate shall be considered renewed even if the operator does not have physical possession of the renewal certificate.

(e) Effect of military service or official leave of absence.

(1) Any operator who returns from active military service or an official leave of absence that does not exceed two years may renew an inactive certification by meeting all of the following requirements and submitting the required information to the department on forms provided by the department:

(A) Provide proof of active military duty or official leave of absence;

(B) provide proof of the last operator certification before going on active duty or taking leave of absence;

(C) pass the current department-approved written operator examination; and

(D) provide proof of satisfactory performance of EBAT device operation in the presence of a device custodian.

(2) Any operator who returns from active military service or an official leave of absence that exceeds two years may renew an expired certification by meeting all of the following requirements and submitting the required information to the department on forms provided by the department:

(A) Provide proof of active military duty or official leave of absence;

(B) provide proof of the last operator certification before going on active duty or taking leave of absence;

(C) provide proof of completion of EBAT continuing education within 180 days of the date of return to the agency;

(D) pass the current department-approved written operator examination; and

(E) provide proof of satisfactory performance of EBAT device operation in the presence of a device custodian.

(f) Certificate denial, suspension, and revocation. The failure of an applicant or a certified operator to comply with this regulation may be grounds for denial of the application or renewal or for suspension or revocation of the operator's certificate. (Authorized by and implementing K.S.A. 2006 Supp. 65-1,107; effective March 14, 2008.)

28-32-11. EBAT device certification. (a) Application. Each agency custodian seeking EBAT device certification shall submit an application on forms provided by the department for certification of each EBAT device the certified agency intends to use in the certified agency's EBAT program.

(b) EBAT device list. The "conforming products list of evidential breath measurement devices" (CPL) established by the national highway traffic safety administration (NHTSA) and published in 71 fed. reg. 37159-37162 (2006) is hereby adopted by reference. Only an EBAT device listed on the CPL shall be submitted to the secretary for consideration for certification as an EBAT device.

(c) Initial certification requirements. Each EBAT device shall be certified by the secretary if the secretary determines that the EBAT device meets NHTSA's performance criteria when op-

erated according to the manufacturer's instruction manual.

(d) Inspection. Once an EBAT device is certified, an inspection of the EBAT device may be made by the secretary at any time. Any EBAT device may be removed from service at the time of the inspection if deemed necessary.

(e) Device maintenance. Each EBAT device shall be maintained by the device custodian or the device custodian's designee as directed by the secretary.

(f) Device repair. Each EBAT device removed from service for repair shall be repaired by the manufacturer or the manufacturer's authorized repair service. When the device is returned to the agency, the EBAT device shall be tested for accuracy by the device custodian or the device custodian's designee. The device custodian or the device custodian's designee shall notify the department of the date the instrument is placed back into service.

(g) Device modification. No modification shall be made to any EBAT device without the prior written consent of the secretary. For purposes of this regulation, "modification" shall mean any change in the operating software or any physical change to a certified EBAT device that alters the accuracy or precision of the device. (Authorized by and implementing K.S.A. 2006 Supp. 65-1,107; effective March 14, 2008.)

28-32-12. Certified operator instruction and continuing education requirements.

(a) Agency personnel may be trained to administer evidential breath alcohol tests by any of the following entities:

- (1) The department;
- (2) a certified agency;
- (3) a college or university; or
- (4) a law enforcement training center.

(b) Both of the following shall be approved in advance by the secretary:

- (1) Each course instructor; and
- (2) each course of instruction offered to fulfill operator certification and EBAT continuing education requirements. (Authorized by and implementing K.S.A. 2006 Supp. 65-1,107; effective March 14, 2008.)

28-32-13. Records and reports. (a) Records.

(1) Each agency custodian or the agency custodian's designee shall maintain the following rec-

ords on file at the certified agency's office for at least three years:

(A) Records of each current certified operator;

(B) records showing that a quality control check was completed at least once each week for each EBAT device assigned to the agency; and

(C) records documenting any maintenance or repair made to each EBAT device.

(2) The records specified in this subsection shall be subject to inspection by the secretary at least annually.

(b) Reports. Each agency custodian or the agency custodian's designee shall maintain a record of the number of individuals tested by each certified operator under the certified agency's supervision and shall submit a quarterly report to the department on forms provided by the department. (Authorized by and implementing K.S.A. 2006 Supp. 65-1,107; effective March 14, 2008.)

28-32-14. Preliminary breath-screening test devices.

(a) Each preliminary breath-screening test conducted shall be performed on a preliminary breath-screening test device approved by the secretary. The devices approved for use as preliminary breath-screening test devices in Kansas shall consist of the following devices and any other device approved by the secretary as specified in subsection (b):

Manufacturer	Model
Alcohol Countermeasure Systems Corp.	Alert J5
CMI, Inc.	Intoxilyzer 300
CMI, Inc.	Intoxilyzer 400
CMI, Inc.	Intoxilyzer S-D2
CMI, Inc.	Intoxilyzer S-D5
Draeger Safety, Inc.	Alcotest 6510
Draeger Safety, Inc.	Alcotest 6810
Draeger Safety, Inc.	Breathalyzer 7410
Guth Laboratories, Inc.	WAT89EC-1
Guth Laboratories, Inc.	Alcotector BAC-100
Intoximeters, Inc.	Alco-Sensor
Intoximeters, Inc.	Alco-Sensor Pass-Warn-Fail
Intoximeters, Inc.	Alco-Sensor III
Intoximeters, Inc.	Alco-Sensor Digital
Intoximeters, Inc.	Alco-Sensor IV Digital
Intoximeters, Inc.	Alco-Sensor IV Pass-Warn-Fail
Intoximeters, Inc.	Alco-Sensor FST
Lifeloc Technologies, Inc.	FC10
Lifeloc Technologies, Inc.	FC10Plus
Lifeloc Technologies, Inc.	FC20
Lifeloc Technologies, Inc.	PBA 3000
Sound-Off, Inc.	AlcoData

(b) Each agency custodian seeking to use a preliminary breath-screening test device that is not specified in subsection (a) shall submit the device to the secretary for examination and evaluation to

determine if the device meets the criteria for approval. In order for a preliminary breath-screening test device to be approved, whether the device meets the following requirements shall be determined by the secretary:

(1) Each preliminary breath-screening test device shall meet the manufacturer's performance criteria when operated according to the procedures specified in the manufacturer's instruction manual for the device in use.

(2) Each reusable preliminary breath-screening test device shall have a disposable mouthpiece.

(c) Each approved preliminary breath-screening test device shall be operated according to the procedures specified in the manufacturer's instruction manual for the device in use.

(d) All training of preliminary breath-screening test device operators shall be the responsibility of each agency. All training shall follow the operational instructions supplied by the manufacturer for the device in use. (Authorized by and implementing K.S.A. 2006 Supp. 65-1,107; effective March 14, 2008.)

Article 33.—LABORATORIES PERFORMING OTHER TESTS

28-33-1. (Authorized by and implementing K.S.A. 1986 Supp. 65-1,107; effective Jan. 1, 1966; amended May 1, 1976; amended May 1, 1988; revoked May 3, 1996.)

28-33-2 to 28-33-6. (Authorized by K.S.A. 1975 Supp. 65-1,107; effective Jan. 1, 1966; amended May 1, 1976; revoked May 1, 1988.)

28-33-7. (Authorized by K.S.A. 1975 Supp. 65-1,107; effective Jan. 1, 1966; revoked May 1, 1988.)

28-33-8 to 28-33-9. (Authorized by K.S.A. 1975 Supp. 65-1,107; effective Jan. 1, 1966; amended May 1, 1976; revoked May 1, 1988.)

28-33-10. (Authorized by K.S.A. 1975 Supp. 65-1,107; effective May 1, 1976; revoked May 1, 1988.)

28-33-11. (Authorized by and implementing K.S.A. 1989 Supp. 65-1,107, as amended by L. 1990, Ch. 215, Sec. 1 and K.S.A. 1989 Supp. 65-6002, as amended by L. 1990, Ch. 234, sec. 2; effective Oct. 2, 1989; amended Feb. 4, 1991; revoked May 3, 1996.)

28-33-12. General provisions. (a) Definitions.

(1) "Department" means the department of health and environment.

(2) "Division" means the division of Kansas health and environmental laboratory.

(3) "Laboratory director" means the person responsible for the professional, administrative, organizational, and educational duties of a laboratory.

(4) "Laboratory supervisor" means the individual responsible for providing day-to-day supervision of testing personnel, including the proper performance of all laboratory procedures and reporting of test results.

(5) "Testing personnel" means individuals responsible for specimen processing, test performance, and reporting test results.

(6) "Test for controlled substance" means a procedure to evaluate a specimen for compounds identified in schedule I or II of the Kansas controlled substance act, K.S.A. 1996 Supp. 65-4105 and 65-4107.

(7) "Threshold" means a defined drug or metabolite concentration that is established at a level resulting in the following:

(A) a concentration at or above this level defines a positive result; and

(B) a concentration below this level defines a negative result.

(8) "Screening test" means a test designed to eliminate true negative specimens from further consideration. Threshold limits used for screening tests shall conform to the mandatory guidelines for federal workplace drug testing programs established by the substance abuse and mental health services administration of the department of health and human services in the federal register, volume 59, number 110, page 29921, published June 9, 1994.

(9) "Confirmatory test" means a mass spectrometry analytical procedure used to specifically identify the presence of a drug or drug metabolite. Threshold limits used for confirmatory testing shall conform to the mandatory guidelines for federal workplace drug testing programs established by the substance abuse and mental health services administration of the department of health and human services in the federal register, volume 59, number 110, pages 29921-29922, published June 9, 1994.

(10) "Unsatisfactory performance" means a

score for any analyte of less than 80% as determined by the proficiency testing provider.

(11) “Unsuccessful participation” means unsatisfactory performance for the same analyte in two consecutive or two out of three consecutive proficiency testing events.

(12) “CLIA” means the clinical laboratory improvement amendments of 1988, Public Law 100-578, as implemented by 42 CFR part 493, issued February 28, 1992, as amended and in effect on April 24, 1995.

(b) Approval procedure. (1) Except as provided in subsection (k), each laboratory located in Kansas seeking approval of the department to perform tests on biological specimens for controlled substances, as defined in schedule I and II of the Kansas controlled substance act, K.S.A. 1996 Supp. 65-4105 and 65-4107, shall be a laboratory that the division director or director’s designee determines meets the requirements for certification under CLIA for the type and complexity of the tests being performed.

(2) (A) Except as set out in paragraph (C), each laboratory seeking approval to test biological specimens for the following drugs or their metabolites shall meet the requirements set out in paragraph (B):

- (i) amphetamines;
- (ii) cannabinoids or tetrahydrocannabinoids (THC);
- (iii) cocaine;
- (iv) opiates; and
- (v) phencyclidine.

(B) In addition to meeting requirements for certification under CLIA, each laboratory seeking approval under paragraph (A) shall submit the following:

- (i) a completed application on standard forms furnished by the division; and
- (ii) documents demonstrating successful performance in one testing event using a proficiency testing program approved by the division.

(C) Any laboratory facility testing specimens for emergency diagnosis and treatment may test for drugs listed on schedule I or II of the Kansas controlled substance act, K.S.A. 1996 Supp. 65-4105 and 65-4107, without meeting the requirements of paragraph (B), if test results are used only for diagnosis and treatment.

(c) Upon receipt of a laboratory’s application for approval, the laboratory shall be inspected by a representative of the division. The laboratory

shall be evaluated to determine compliance using the following criteria.

(1) Screening test methods shall screen for the following five classes of drugs:

- (A) amphetamines;
- (B) cannabinoid or THC metabolites;
- (C) cocaine metabolites;
- (D) opiates; and
- (E) phencyclidine.

(2) Each test procedure shall be performed in accordance with a written protocol. The protocol shall be approved by the laboratory director. The protocol shall require that a blank control containing no drug and a control fortified with a known analyte concentration greater than the threshold limit for each analyte be included with each batch of specimens tested. At least one fortified control shall be at or near the threshold cut-off. The protocol shall insure that carryover between specimens does not occur.

(3) A laboratory quality assurance program shall be developed and implemented. The program shall contain the following components:

(A) requirements for sample collection that adhere to the criteria of the division director or the director’s designee, or a signed statement that the specimen was properly collected according to these criteria, if collection is at a location other than the laboratory performing the test;

(B) identification and chain of custody procedures for specimens;

(C) procedures for assuring the security of the testing area, test records, and test reports;

(D) confirmation procedures for all positive screening tests unless evidenced by documentation that the testing is performed for one of the following:

(i) medical purposes on a hospital inpatient or patient currently undergoing treatment in a hospital emergency room;

(ii) a specimen from an individual currently under treatment for substance abuse; or

(iii) a correctional facility solely for the purpose of internal management of persons as defined in regulations promulgated by the secretary of corrections;

(E) a policy stating that only confirmed positive results shall be reported as positive;

(F) procedures for an internal quality control program that monitors the accuracy and precision of laboratory performance;

(G) procedures for an instrument maintenance

program that, at a minimum, conforms to the manufacturer's specifications;

(H) provision for retention of all confirmed positive specimens for at least one year;

(I) policies requiring disposal of all medical wastes in accordance with K.A.R. 28-29-27; and

(J) documentation of adherence to the foregoing policies and procedures.

(4) Equipment required by the test system shall meet the specifications of the test system's manufacturer.

(5) Reagents, controls, and any other required materials for the procedure being performed shall be available and shall be stored according to the manufacturer's specifications.

(d) During the inspection by the division, one or more testing personnel may be required to demonstrate performance of the procedure under consideration.

(e) Except as provided in subsection (k), each approved laboratory located in Kansas shall be inspected by the division biennially. A follow-up inspection of any approved laboratory may be conducted by the division at any time.

(f) Each laboratory performing tests for controlled substances shall have an individual serving as laboratory director who holds one of the following credentials:

(1) current licensure as a physician in the state where the laboratory is located, with additional training in pharmacology, toxicology, clinical pathology or forensic pathology; or

(2) an earned doctoral degree from an accredited institution in a chemical or biological science and at least two years of laboratory experience in chemistry or analytical toxicology.

(g) Each laboratory performing tests for controlled substances shall have an individual or individuals serving as a laboratory supervisor. Each laboratory supervisor shall hold one of the following credentials:

(1) an earned doctoral degree from an accredited institution in a chemical or biological science and at least two years of laboratory experience in chemistry or analytical toxicology; or

(2) an earned baccalaureate degree from an accredited institution in a chemical or biological science or medical technology and at least four years of experience in chemistry or analytical toxicology.

(h) Each laboratory performing tests for controlled substances shall have one or more individuals serving as testing personnel. Each individual

serving as testing personnel shall hold one of the following credentials:

(1) an earned baccalaureate degree from an accredited institution in a chemical or biological science or medical technology;

(2) an earned associate degree from an accredited institution in a chemical or biological science or medical technology; or

(3) have achieved a satisfactory grade in the health and human services written clinical laboratory technologist examinations offered between March 7, 1975 and August 28, 1987 by the professional examination service.

(A) The laboratory director shall document that testing personnel performing tests have been adequately trained in each test procedure being performed.

(B) Records of educational credentials and training shall be maintained for each individual qualified under subsections (f), (g), or (h) of this regulation.

(i) One copy of each test requisition, test record, and test report shall be maintained in a readily retrievable manner by the laboratory for a period of two years.

(j) Proficiency program. Each laboratory shall enroll and participate in an approved external proficiency testing program for opiates, cocaine, cannabinoids or THC, amphetamines, and phencyclidine. A list of approved proficiency testing programs shall be available from the division.

(1) The results of each laboratory's performance in the proficiency testing program shall be sent directly from the approved program provider to the division.

(2) The approval for any laboratory may be revoked by the director of the division or the director's designee when the laboratory meets the criteria for unsuccessful participation in an approved external proficiency testing program.

(3) Each laboratory shall undertake an investigation and institute corrective action for all incorrect responses identified in the proficiency testing program. The laboratory shall maintain documentation of the investigation and corrective action for a period of two years.

(k) (1) Any laboratory that is not located in the state of Kansas may apply for approval. Such a laboratory shall be added to the list of approved laboratories if it meets the following conditions.

(A) The laboratory shall be certified or approved by a federal, state, or independent agency having standards that are determined by the di-

rector of the division, or the director's designee, to be generally equivalent or more stringent than the standards set out in subsections (b) through (j) of this regulation.

(B) The laboratory seeking approval shall submit the following documentation for inspection by the department:

(i) a completed application on standard forms furnished by the division;

(ii) a report of the most recently completed on-site inspection by the approving agency addressing subsections (c) through (e);

(iii) proficiency testing results from the most recently completed proficiency challenge;

(iv) documents demonstrating that the laboratory personnel meet the qualifications set forth in subsections (f), (g), and (h); and

(v) any other documentation deemed necessary by the division.

(2) Any laboratory located in Kansas may seek approval under this subsection in lieu of following approval procedures in subsection (b) and meeting the on-site inspection requirements in subsections (c) through (e).

(l) List of approved laboratories. A current list of approved laboratories shall be maintained by the division. Each laboratory shall be approved biennially.

(m) Removal from approved list.

(1) A laboratory shall be removed from the approved list after voluntarily terminating or after notice and an opportunity for a hearing. All orders of revocation shall become final 15 days after service unless an appeal is filed in writing. All appeals shall be conducted according to the Kansas administrative procedure act, K.S.A. 77-501 et seq. and any amendments.

(2) Notification of removal of a laboratory from the approved list shall be made by certified mail. (Authorized by K.S.A. 1996 Supp. 65-1,107; implementing K.S.A. 1996 Supp. 65-1,107, 65-1,108, and 65-1,108a; effective Oct. 2, 1989; amended May 3, 1996; amended Oct. 10, 1997.)

Article 34.—HOSPITALS

PART 1.—GENERAL

28-34-1. (Authorized by K.S.A. 65-431; effective Jan. 1, 1969; revoked June 28, 1993.)

28-34-1a. Definitions. (a) "Authenticate" means to verify authorship by written signature, identifiable initials, or computer key. The use of

rubber stamp signatures shall be acceptable if the following conditions are met.

(1) The practitioner whose signature the rubber stamp represents is the only individual who has possession of the stamp and who uses the stamp.

(2) The hospital maintains, in its administrative offices, a signed statement by the practitioner indicating that the practitioner is the only person who possesses and uses the stamp.

(b) "Chief executive officer" means the individual appointed by the governing body to act on its behalf in the overall management of the hospital.

(c) "Consultant" means a person who provides professional advice or services on request.

(d) "Covering practitioner" means a member of the hospital's medical staff who is authorized by the patient's attending physician or other practitioner to provide care and treatment for the patient in the absence of the attending physician or other practitioner.

(e) "Dentist" means a person licensed in Kansas to practice dentistry.

(f) "Dietitian" means a person who is licensed in Kansas as a dietitian.

(g) "Dietetic services supervisor" means an individual who meets one of the following requirements:

(1) Is licensed in the state of Kansas as a dietitian;

(2) has an associate's degree in dietetic technology from a program approved by the American dietetic association;

(3) is a dietary manager who is certified by the board of the dietary managers' association; or

(4) has training and experience in dietetic services supervision and management that are determined by the secretary of health and environment to be equivalent in content to paragraph (2) or (3) of this subsection.

(h) "Director" means a person with administrative responsibility for the direction of a service for the hospital. When this term is used in connection with a medical or clinical service, it shall be synonymous with "chairperson" and shall not imply a salaried individual.

(i) "Drug administration" means the direct application of a drug or biological, whether by injection, inhalation, ingestion, or any other means, to the body of a patient by either of the following:

(1) A practitioner, or pursuant to the lawful direction of a practitioner, who is acting within the

scope of that practitioner's license and who is qualified according to medical staff bylaws; or

(2) the patient at the direction and in the presence of a practitioner.

(j) "Drug dispensing" means delivering prescription medication to the patient pursuant to the lawful order of a practitioner.

(k) "Facilities" means buildings, equipment, and supplies necessary for the implementation of hospital services.

(l) "Licensed practical nurse" means an individual who is licensed in Kansas as a licensed practical nurse.

(m) "Licensing agency" means the Kansas department of health and environment.

(n) "Long-term care unit" means a unit that provides physician services and continuous nursing supervision for patients who are not in an acute phase of illness and who currently require nursing care that is primarily of a convalescent, restorative, or long-term nature. Medicare-certified, distinct-part, long-term care units shall be included.

(o) "Nursing care unit" means an organized jurisdiction of nursing services in which nursing services are provided on a continuous basis.

(p) "Nursing services" means patient care services pertaining to the curative, restorative, and preventive aspects of nursing that are performed or supervised by a registered nurse pursuant to the medical care plan of the practitioner and the nursing care plan.

(q) "Organized" means administratively and functionally structured.

(r) "Organized medical staff" means a formal organization of physicians and dentists, with the responsibility and authority to maintain proper standards for patient care as delegated by the governing body.

(s) "Outpatient services" means an organizational unit of the hospital that is designed to support the provision of nonemergency health care services to patients who do not remain in the hospital overnight. The term shall include a short-term procedure unit if applicable.

(t) "Pathologist" means either of the following:

(1) A person who is licensed in Kansas to practice medicine and surgery and who is a board-certified or board-eligible pathologist; or

(2) a person licensed in Kansas as a dentist and certified as an oral pathologist.

(u) "Patient" means a person admitted to the

hospital upon the order of a member of the medical staff.

(v) "Physician" means a person licensed in Kansas to practice medicine and surgery.

(w) "Practitioner" means a member of the hospital's medical staff and may include a physician or dentist.

(x) "Qualified nurse anesthetist" means any of the following:

(1) A registered nurse who has been certified as a nurse anesthetist by the council on certification of the American association of nurse anesthetists and has been authorized as a registered nurse anesthetist by the Kansas board of nursing;

(2) a student enrolled in a program of nurse anesthesia by the council on accreditation of the American association of nurse anesthetists; or

(3) a graduate of an accredited program of nurse anesthesia who is awaiting certification testing or the results of the certification test and has been granted temporary authorization as a registered nurse anesthetist by the Kansas state board of nursing.

(y) "Registered nurse" means a person who is licensed in Kansas as a registered professional nurse.

(z) "Service" means either of the following:

(1) A functional division of the hospital or of the nursing or medical staff; or

(2) the delivery of care.

(aa) "Supervision" means authoritative procedural guidance provided by a qualified person for the accomplishment of a function or activity within that person's sphere of competence. Supervision shall include initial direction and periodic inspection of the actual act of accomplishing the function or activity.

(bb) "Survey" means the process of evaluation or re-evaluation of a hospital's compliance with this article. (Authorized by and implementing K.S.A. 65-431; effective June 28, 1993; amended Feb. 9, 2001; amended Nov. 26, 2001.)

28-34-2. Licensing procedure. Each applicant for an initial license to operate a hospital shall file an application on forms provided by the licensing agency at least 90 days prior to admission of patients. A license previously issued shall be renewed after the licensee has filed an annual report and the licensing agency has approved the same. The licensing agency shall approve the renewal after it has documented that the applicant is in substantial compliance with these regula-

tions. Each application for license renewal shall be filed with the licensing agency at least 90 days before the expiration date of the current license, and the annual report shall be filed no later than 60 days after the beginning of each calendar year. The annual report may include information relating to:

- (1) Administration and ownership;
- (2) classification;
- (3) allocation of beds;
- (4) special care services;
- (5) patient statistics;
- (6) surgical facilities, services and procedures;
- (7) outpatient and emergency room services;

and

- (8) staff personnel.

(b) New construction, alterations or renovations that provide space for patient services or patient rooms shall not be used until authorization has been received from the licensing agency. The licensing agency may give such authorization orally or by telephone and shall provide the facility with written confirmation within 30 days.

(c) The license shall authorize a facility to operate only the number and classifications of beds that appear on the previous license application unless additional beds or reclassification of beds have been approved in accordance with K.A.R. 28-34-32a.

(d) If the facility is found to be in violation of any of these regulations, the licensing agency shall notify the applicant in writing of each violation and require that a plan of correction be submitted before a license is issued or renewed. The plan shall state specifically what corrective action will be taken and the date on which it will be accomplished.

(e) If during the term of its current license a facility is surveyed by the joint commission on accreditation of health care organizations (JCAHO) or the American osteopathic association (AOA), the facility shall submit the survey report to the licensing agency toward satisfying the survey requirements for licensure. After reviewing the survey report, the licensing agency may notify the facility that a licensing survey will be conducted.

(f) The licensing agency will document the extent of the facility's compliance with these regulations in at least one of the following ways:

- (1) The statement of a responsible, authorized administrator or staff member;
- (2) documentary evidence of compliance provided by the facility;

(3) answers by the facility to detailed questions provided by the licensing agency concerning the implementation of any provisions of these regulations or examples of such implementation which will enable a judgment about compliance to be made;

- (4) on-site observations by surveyors; or

(5) interviews with patients, employees or other persons or sources capable of providing reliable information. (Authorized by K.S.A. 65-428 and K.S.A. 65-431; implementing K.S.A. 65-428; K.S.A. 65-429 and 65-431; effective Jan. 1, 1969; amended Jan. 1, 1974; amended May 1, 1980; amended June 28, 1993.)

28-34-3. (Authorized by and implementing K.S.A. 65-431; effective Jan. 1, 1969; revoked May 1, 1986.)

28-34-3a. General requirements. (a) Patient limits. The number of patients admitted to any area of the hospital shall not exceed the number for which the area is designed, equipped, and staffed, except in cases of an emergency. In an emergency, patients shall be admitted in accordance with the emergency or disaster plan of the hospital.

(b) Emergency electrical service. Each hospital shall have an emergency source of power to provide electricity during an interruption of the normal electrical supply. The source of this emergency electrical service shall be:

(1) An emergency generating set when the normal service is supplied by one or more central station transmission lines; or

(2) An emergency generating set or a central station transmission line when the normal electrical supply is generated on the premises.

(c) Emergency electrical system. The emergency electrical system shall include a life safety branch and a critical branch. The life safety branch shall serve illumination, alarm, and alerting equipment which shall be operable at all times for protection of life during emergencies. The critical branch shall serve lighting and receptacles in critical patient care areas.

(d) Vital statistics. Each hospital shall comply with vital statistics statutes and regulations regarding the completion and filing of birth, death, and fetal death certificates within a specified period of time.

(e) Smoking. Smoking may be permitted only in designated areas. Patients shall have the right to choose to be assigned to a room in which smok-

ing is not permitted. Smoking shall be prohibited in all other areas that are used for patient treatment or diagnosis. The hospital shall establish written rules regarding smoking within the hospital. Rules shall be posted where they can be observed by the hospital staff and the public. Smoking shall be prohibited in any room or area where flammable liquid, combustible gas, or oxygen is being stored or used and in any other hazardous area of the hospital. Patients classified as not mentally or physically responsible for their actions shall be prohibited from smoking unless constant supervision is provided. The sale of any tobacco products shall be prohibited in any area of the hospital.

(f) Internal disaster plan. The hospital shall establish a workable plan with the nearest fire department for fire fighting service. The hospital shall provide the fire department with a current floor plan of the building. The floor plan shall show the location of fire fighting equipment, exits, patient rooms, places where flammable and explosive gases are stored, and any other information that the fire department requires. The hospital shall also develop an internal disaster and fire plan incorporating evacuation procedures. These plans shall be made available to all personnel and shall be posted throughout the building. Each employee shall participate in the duties delegated to them under the safety program and shall be instructed in the operation of the fire warning system, the proper use of fire fighting equipment, and the procedure to follow in the event that electrical power is impaired.

(g) External disaster plan. The hospital shall establish written plans, based on its capabilities, for the proper and timely care of casualties arising from external disasters. The disaster plan shall be developed in conjunction with other emergency facilities in the community so that adequate logistical provisions are made for the expansion of the activities of the hospital in coordination with the activities of other facilities. The external disaster plan shall be rehearsed at least twice a year, preferably as part of a coordinated drill in which other community emergency service agencies participate. The drills shall involve professional, administrative, nursing, and other hospital personnel. A written report and evaluation of all drills shall be maintained for at least two years. (Authorized by and implementing K.S.A. 65-431; effective May 1, 1986.)

28-34-3b. Patient rights. (a) Policies and procedures. The governing body shall ensure that the facility establishes policies and procedures which support the rights of all inpatients and outpatients. At a minimum, each facility shall ensure that:

(1) Each patient has the right to respectful care given by competent personnel;

(2) each patient has the right, upon request, to be given the name of his attending physician, the names of all other practitioners directly participating in his care and the names and functions of other health care persons having direct contact with the patient;

(3) each patient has the right to make health care decisions. Each patient has the right to the information necessary to make treatment decisions reflecting the patient's wishes and to request a change in his physician or transfer to another health facility due to religious or other reasons;

(4) each patient has the right to accept medical care, to refuse treatment to the extent permitted by state law and to be informed of the medical consequences of refusing treatment;

(5) each patient has the right to formulate advance directives and appoint a surrogate to make health care decisions on the patient's behalf to the extent permitted by law;

(6) each patient has the right to assistance in obtaining consultation with another physician or practitioner at the patient's request and own expense;

(7) each patient has the right to hospital services without discrimination based upon his race, color, religion, sex, national origin or source of payment;

(8) each patient or patient's legally designated representative has access to the information contained in the patient's medical records within the limits of state law;

(9) each patient has the right to examine and receive a detailed explanation of the patient's bill; and

(10) each patient is informed of the facility's policies regarding patient rights during the admission process.

(b) Grievances. The facility's policies and procedures shall establish a mechanism for responding to patient complaints. (Authorized by and implementing K.S.A. 1991 Supp. 65-431; effective June 28, 1993.)

28-34-4. (Authorized by and implementing

K.S.A. 65-431; effective Jan. 1, 1974; revoked May 1, 1986.)

28-34-4a. Visitors. (a) Each hospital shall establish visitation policies which are in the interest of the patients. Children under 12 years of age shall not be admitted as visitors to the hospital except in the company of a responsible adult. Children under six years of age shall be admitted as visitors only when the hospital has a special family visiting program or when authorized in writing by the attending physician, or the chief executive officer of the hospital, or the professional nurse charged with the responsibility for the care of the patient.

(b) Each hospital shall post visiting regulations in a location where they can be easily viewed by the public. (Authorized by and implementing K.S.A. 65-431; effective May 1, 1986.)

28-34-5. (Authorized by K.S.A. 65-431; effective Jan. 1, 1969; revoked June 28, 1993.)

28-34-5a. Governing authority. (a) Governing body. Each hospital shall have an organized governing body. The governing body shall be the ultimate authority in the hospital responsible for its organization and administration in a manner which is consistent with appropriate standards of patient care, environmental safety and institutional management.

(b) Bylaws. The governing body shall adopt its own set of bylaws. At a minimum, the bylaws shall contain the following provisions:

- (1) A statement of the mission of the hospital;
- (2) a description of the powers and duties of the governing body, officers and committees and of the responsibilities of the chief executive officer;
- (3) a statement of the qualifications for governing body membership, the procedures for selecting members and the term for members, officers and committee chairpersons;
- (4) a description of the authority delegated to the medical staff;
- (5) a requirement that the governing body review and approve the bylaws of the medical staff organization;
- (6) a requirement that the governing body approve or deny all applications for medical staff membership and for the granting of clinical and admitting privileges; and
- (7) a description of the mechanism by which

the governing body bylaws are adopted, reviewed and revised.

(c) Functions. At a minimum, the governing body shall:

- (1) Provide adequate physical resources and personnel for appropriate patient care;
 - (2) participate in planning to define and help meet the health needs of the community;
 - (3) formulate short-term and long-term plans for the development of the hospital;
 - (4) review the annual audit of the financial operations of the hospital;
 - (5) maintain effective communication with the medical staff;
 - (6) require the medical staff to establish controls that are designed to achieve and maintain appropriate standards of ethical professional practice;
 - (7) establish a structure to effectively fulfill the governing body's responsibilities and to evaluate the implementation of programs and policies;
 - (8) maintain a written record of governing body proceedings; and
 - (9) implement and maintain a risk management program in accordance with K.S.A. 65-4291 et seq.
- (d) Conflict of interest. Members of the governing body shall not maintain personal or business interests which conflict with those of the hospital to an extent deemed by the governing body to present a threat of injury to or loss of the hospital's reputation, assets or ability to provide patient care. (Authorized by and implementing K.S.A. 1991 Supp. 65-431; effective June 28, 1993.)

28-34-6. (Authorized by K.S.A. 65-431; effective Jan. 1, 1969; revoked June 28, 1993.)

28-34-6a. Medical staff. (a) General provision. Each hospital shall maintain an organized medical staff. Admission to the staff and clinical privileges associated with membership shall be granted by the governing authority through a mechanism that evaluates each member's qualifications to engage in that member's area of clinical practice. Admitting privileges may be granted to any practitioner as defined in K.A.R. 28-34-1a(w).

(b) Membership. The medical staff shall be limited to practitioners who have made application in accordance with the bylaws of the medical staff and the governing body. The medical staff shall adopt bylaws that define the requirements

for admission to staff membership and for the delineation and retention of clinical and admitting privileges. Each member shall be granted privileges that are commensurate with the member's qualifications, experience, and present capabilities and that are within the member's scope of practice. Although certification, fellowship, membership on a specialty board or society, or the completion of a general practice residency may be considered in determining an individual's qualifications for medical staff membership, membership decisions shall not be made solely upon any one of these factors.

(c) Medical staff status.

(1) Each hospital shall have an active medical staff to deliver the preponderance of medical services within the hospital. The active medical staff shall have primary responsibility for the organization and administration of the medical staff. Each member of the active medical staff shall be eligible to vote at staff meetings, hold office, and serve on staff committees.

(2) In addition to the active medical staff, the hospital may provide for additional kinds of medical staff privileges. These additional staff categories shall in no way modify the privileges, duties, and responsibilities of the active medical staff. These additional staff categories may be eligible to vote at staff meetings, hold office, and serve on staff committees.

(d) Appointment and reappointment. After considering medical staff recommendations, the governing body shall affirm, deny, or modify each recommendation for appointment to the medical staff and the granting of clinical privileges to any practitioner. Formal application for membership and for the granting of clinical privileges shall follow established procedures set forth in the bylaws, policies, and procedures of the medical staff.

(e) Medical staff bylaws, policies, and procedures. The medical staff shall develop and adopt, subject to the approval of the governing body, a set of bylaws that shall provide for at least the following:

(1) The organizational structure of the medical staff;

(2) qualifications for staff membership and procedures for admission, retention, assignment, and either reduction or withdrawal of privileges;

(3) procedures and standards for the review of staff credentials;

(4) a mechanism for an appeal by a practitioner

who receives an unfavorable medical staff recommendation;

(5) delineation of clinical privileges and duties of professional personnel who function in a clinical capacity and who are not members of the medical staff;

(6) methods for the selection of officers and department or service chairpersons and a description of their duties and responsibilities;

(7) the composition and function of standing committees;

(8) requirements regarding the completion of medical records, including a system of disciplinary action for failure to complete the records of discharged patients within 30 days after dismissal or current records within 48 hours of admission;

(9) a mechanism by which the medical staff consults with and reports to the governing body;

(10) medical staff meetings for the purpose of reviewing the performance of the medical staff and each department or service and reports and recommendations of the medical staff and multidisciplinary committees; and

(11) a mechanism for review of medical staff performance that shall include consideration of relevant ethics and statutory codes of conduct.

(f) Medical care review. The medical staff shall develop and implement a system to review medical services rendered, evaluate their quality, and provide an educational program for medical staff members. This system shall include written criteria for the evaluation of medical care that shall cover admission, length of stay, and professional services furnished and shall be conducted on at least a sample basis.

(g) Medical orders.

(1) Medication or treatment shall be administered only upon written and signed orders of a practitioner who is acting within the scope of that practitioner's license and who is qualified according to medical staff bylaws.

(2) A practitioner may give verbal orders, including telephone orders, for medication or treatment to personnel who are qualified according to medical staff bylaws. The person entering these orders into the medical record shall sign and date the entry as soon as possible. These orders shall be authenticated by the prescribing or covering practitioner within 72 hours of the patient's discharge or 30 days, whichever occurs first. (Authorized by and implementing K.S.A. 65-431; effective June 28, 1993; amended Feb. 9, 2001.)

28-34-7. Nursing personnel. (a) There shall be an organized nursing department, including a departmental plan of administrative authority with written delineation of responsibilities and duties of each category of nursing personnel.

(b) All registered nurses employed by the hospital to practice professional nursing shall be licensed in Kansas.

(c) All practical nurses employed by the hospital shall be licensed in Kansas.

(d) There shall be a director of nursing service.

(e) All licensed practical nurses and other ancillary personnel performing patient care services shall be under the supervision of a registered nurse.

(f) There shall be at least one registered nurse on duty in the hospital at all times.

(g) Nursing care policies and procedures shall be in writing and consistent with generally accepted practice and shall be reviewed and revised as necessary.

(h) Private duty nurses shall be licensed in Kansas and shall be subject to the policies, rules, and regulations of the hospital in which they are employed.

(i) Minutes shall be kept of nursing staff meetings. (Authorized by K.S.A. 65-431; effective Jan. 1, 1969.)

28-34-8. (Authorized by K.S.A. 1979 Supp. 65-431; effective Jan. 1, 1969; amended May 1, 1980, revoked June 28, 1993.)

28-34-8a. Administrative services. (a) General provisions. There shall be an adequate administrative staff to provide effective management of the hospital.

(b) The chief executive officer. The governing body shall appoint a chief executive officer. The qualifications, responsibilities, duties and authority of the chief executive officer shall be described in a written statement adopted by the governing body. The chief executive officer shall implement the policies established by the governing body for the operation of the hospital and shall act as a liaison between the governing body, the medical staff and the departments of the hospital.

(c) Personnel policies and procedures. The governing body, through the chief executive officer, shall establish and maintain written personnel policies and procedures which adequately support sound patient care. These policies and procedures shall be made available to all employees and shall be reviewed at least every two years. A procedure

shall be established for advising employees of policy and procedure changes.

(d) Personnel records. Accurate and complete personnel records shall be maintained for each employee. Personnel records shall contain at least the following information for each employee:

(1) Information regarding the employee's education, training and experience that is sufficient to verify the employee's qualifications for the employee's job. The information shall indicate the employee's professional licensure status;

(2) current information regarding periodic work performance evaluations; and

(3) records of the initial health examination and of subsequent health services and periodic health evaluations.

(e) Education programs. Orientation and in-service training programs shall be provided to allow personnel to improve and maintain skills and to learn of new health care developments.

(f) Personnel health requirements. Upon employment, all hospital personnel shall have a medical examination which shall consist of examinations appropriate to the duties of the employee, including a chest X-ray or tuberculin skin test. Subsequent medical examinations or health assessments shall be given periodically in accordance with hospital policies. Each hospital shall develop policies and procedures for control of communicable disease, including maintenance of immunization histories and the provision of educational materials to the patient care staff. (Authorized by and implementing K.S.A. 1991 Supp. 65-431; effective June 28, 1993.)

28-34-9. (Authorized by and implementing SCR 1657; effective May 1, 1982; revoked May 1, 1986.)

28-34-9a. Medical records services. (a) General provisions. Each hospital shall maintain medical records for each patient admitted for care. The records shall be documented and readily retrievable by authorized persons.

(b) Organization and staffing.

(1) Each hospital shall have a medical records service that is directed, staffed, and equipped to enable the accurate processing, indexing, and filing of all medical records. The medical records service shall be under the direction of a person who is a registered health information administrator or a registered health information technician as certified by the American health information management association, or who meets the edu-

cational or training requirements for this certification.

(2) If the employment of a full-time registered health information administrator or registered health information technician is impossible, the hospital shall employ a registered records administrator or an accredited records technician on a part-time consultant basis. The consultant shall organize the department, train full-time personnel, and make periodic visits to evaluate the records. There shall be a written contract between the hospital and the consultant that specifies the consultant's duties and responsibilities.

(3) At least one full-time employee shall provide regular medical records service.

(c) Facilities. The medical records department shall be properly equipped to enable its personnel to function in an effective manner and to maintain medical records so that the records are readily accessible and secure from unauthorized use.

(d) Policies and procedures.

(1) Each medical record shall be kept on file for 10 years after the date of last discharge of the patient or one year beyond the date that the minor patient reached the age of majority, whichever is longer.

(2) If a hospital discontinues operation, the hospital shall inform the licensing agency of the location of its records.

(3) A summary shall be maintained of medical records that are destroyed. This summary shall be retained on file for at least 25 years and shall include the following information:

(A) The name, age, and date of birth of the patient;

(B) the name of the patient's nearest relative;

(C) the name of the attending and consulting practitioners;

(D) any surgical procedure and date, if applicable; and

(E) the final diagnosis.

(4) Medical records may be microfilmed after completion. If the microfilming is done off the premises, the hospital shall take precautions to assure the confidentiality and safekeeping of the records.

(5) Each record shall be treated as confidential. Only persons authorized by the governing body shall have access to the records. These persons shall include individuals designated by the licensing agency for the purpose of verifying compliance with state or federal statutes or regulations

and for disease control investigations of public health concern.

(6) Medical records shall be the property of the hospital and shall not be removed from the hospital premises except as authorized by the governing body of the hospital or for purposes of litigation when specifically authorized by Kansas law or appropriate court order.

(e) Contents of medical records. Medical records shall contain sufficient information to identify the patient clearly, to justify the diagnosis and treatment, and to document the results accurately. At a minimum, each record shall include the following:

(1) Notes by authorized house staff members and individuals who have been granted clinical privileges, consultation reports, nurses' notes, and entries by designated professional personnel;

(2) findings and results of any pathological or clinical laboratory examinations, radiology examinations, medical and surgical treatment, and other diagnostic or therapeutic procedures; and

(3) provisional diagnosis, primary and secondary final diagnosis, a clinical resume, and, if appropriate, necropsy reports.

(f) Each entry in each record shall be dated and authenticated by the person making the entry. Verbal orders, including telephone orders, shall include the date and signature of the person recording them. The prescribing or covering practitioner shall authenticate the order within 72 hours of the patient's discharge or 30 days, whichever occurs first. Records of patients discharged shall be completed within 30 days following discharge. (Authorized by and implementing K.S.A. 65-431; effective May 1, 1986; amended June 28, 1993; amended Feb. 9, 2001.)

28-34-10. (Authorized by K.S.A. 1973 Supp. 65-431; effective Jan. 1, 1969; amended Jan. 1, 1974; revoked June 28, 1993.)

28-34-10a. Pharmacy services. (a) General provisions. Each hospital shall provide pharmaceutical services which are administered in accordance with accepted ethical and professional practices.

(b) Organization and staffing. The pharmaceutical service shall be directed by a licensed pharmacist. If the hospital has a pharmacy, it shall be directed by a licensed pharmacist. If the hospital does not have a pharmacy or a full-time staff pharmacist, a pharmacist employed on a part-time or consultant basis shall be responsible for control

and dispensing of drugs and for operation of the pharmacy or the pharmaceutical functions of nursing stations. In addition to meeting the standards in this regulation, services shall be provided in accordance with K.A.R. 68-7-11 and amendments thereto.

(c) Pharmacy facilities. Each hospital that maintains a pharmacy on its premises shall provide adequate equipment, supplies and facilities for the storage, safeguarding, preparation and dispensing of drugs. Drugs and biologicals must be kept in locked storage areas. Drugs requiring refrigeration shall be stored in conveniently located refrigerators which shall be used for drug storage only.

(d) Pharmacy and therapeutics committee. Each hospital shall establish a pharmacy and therapeutics committee or its equivalent. The committee shall consist of at least physicians, nurses and pharmacists. This committee shall assist in the formulation of broad professional policies regarding evaluation, appraisal, selection, procurement, storage, distribution and use of drugs and safety procedures and all other matters relating to drugs in the hospital. This committee shall meet at least quarterly, record its proceedings and report to the medical staff.

(e) Policies and procedures. The pharmaceutical service shall develop written policies and procedures. These policies shall be reviewed by the medical staff at least annually and shall be dated to indicate the date of last review. Procedures shall be established for the recording of all drug dispensations or other pharmacy transactions of the pharmacy or nursing stations.

(f) Medications dispensed. The hospital pharmacy shall dispense from a formulary of drugs approved by the medical staff through its appropriate committees. Any drug approved by the food and drug administration for use as an experimental drug may be used in accordance with standards established by the hospital's medical staff.

(g) Commercial pharmaceutical service. Each hospital using an outside pharmacist or pharmaceutical service shall have a contract with that pharmacist or service. As part of the contract, the pharmacist or service shall be required to maintain at least the standards for operation outlined in these regulations. (Authorized by and implementing K.S.A. 1991 Supp. 65-431; effective June 28, 1993.)

28-34-11. Laboratory. (a) Definitions.

(1) "CLIA" means Public Law 100-578 implemented by 42 CFR 493 issued Feb. 28, 1992, as in effect on Sept. 1, 1992; changes in subparts H, R and preamble to the Feb. 28, 1992 final rule issued Aug. 11, 1992, as in effect on Sept. 1, 1992; technical corrections made in subparts T, F, A, K, C, Q, M and R issued Jan. 19, 1993, as in effect on Sept. 1, 1992; and changes in subparts M and K issued July 22, 1993, as in effect on Jan. 19, 1993.

(2) "Clinical consultant" means the individual or individuals in the laboratory defined by 42 CFR 493.1417(b), as in effect on Sept. 1, 1992 or 493.1455(b), as in effect on Sept. 1, 1992.

(b) The laboratory or laboratories performing analytical tests within the hospital shall hold a valid CLIA certificate for the type and complexity of all tests performed.

(c) Clinical laboratory services shall be available on the hospital premises or provided by a CLIA certified laboratory.

(d) An "authorized individual" shall, through written or electronic means, request all tests performed by the laboratory. The individual or individuals serving as the laboratory's clinical consultant or consultants, defined by 42 CFR 493.1417(b), as in effect on Sept. 1, 1992 or 493.1455(b), as in effect on Sept. 1, 1992, shall clearly define in writing an "authorized individual."

(e) All tissues removed shall be macroscopically examined. If deemed necessary, by written hospital policies and procedures, tissues shall then be microscopically examined. A list of all tissues which routinely do not require microscopic examination shall be developed in writing by a pathologist and approved by the medical staff of each hospital.

(f) The original report or duplicate copies of written tests reports and supporting records shall be retained in a readily retrievable form by the laboratory for a period of at least:

- (1) two years for routine test reports;
- (2) five years for blood banking test reports; and
- (3) ten years for histologic or cytologic test reports.

(g) Facilities for procurement, safekeeping, and transfusion of blood, blood products or both shall be provided or readily available. If blood products or transfusion services are provided by sources outside the hospital, they shall be provided by a CLIA certified laboratory. The source

shall be certified for the scope of testing performed or products provided.

(h) Laboratories shall release all proficiency test results to KDHE within seven days of a written request. (Authorized by and implementing K.S.A. 65-431; effective Jan. 1, 1969; amended Jan. 1, 1974; amended May 3, 1996.)

28-34-12. Radiology department. (a) Facilities for diagnostic radiology shall be available.

(b) Emergency radiological services shall be reasonably available at all times.

(c) The radiology department and all patient services rendered therein shall be under the supervision of a designated medical staff physician; wherever possible, this physician shall be an attending or consulting radiologist.

(d) The technical personnel working in the department shall be qualified for the type of service performed.

(e) Written medical policies and procedures shall be developed under the direction of the physician responsible for the patient services of the department.

(f) Rooms in which ionizing radiation producing devices or equipment or radioactive materials are to be used or stored shall afford radiation protection in accordance with the Kansas radiation protection regulations and the recommendations of the national council on radiation protection and measurements.

(g) Radioactive materials and ionizing radiation producing devices and equipment shall be procured, stored, used, and disposed of in accordance with the Kansas radiation protection regulations and the license or registration required by the regulations as authorized by K.S.A. 48-1607.

(h) All control devices, switches, and electrical connections for radiological equipment shall conform to the requirements of the national board of fire underwriters.

(i) All X-ray and gamma beam therapy equipment shall be calibrated at least annually by a qualified expert according to definitions and procedures provided by the national council on radiation protection, as amended. All radiation producing equipment, therapeutic or diagnostic, shall be inspected at least every two years by the appropriate state agency. The designated radiation safety officer or physician in charge of the radiology department shall be furnished a signed copy of such inspection reports.

(j) Therapeutic radiation shall be administered

to patients only at the direction and under the supervision of a radiologist.

(k) Diagnostic and therapeutic use of radioactive isotopes and radium therapy shall conform to applicable state and federal regulations, and shall be under the supervision of a radiologist or other qualified physician.

(l) The interpretation of all radiological examinations shall be made by physicians.

(m) A written report of the findings and evaluation of each radiological examination performed or course of treatment conducted shall be signed by the physician responsible for the procedure and shall be made a part of the patient's permanent medical record.

(n) Personnel exposure monitoring shall be maintained for each person regularly working in the radiation area. Regular periodic recording of cumulative exposure shall be maintained for each person so monitored, and shall contain at least all of the information required by the Kansas radiation protection regulations for such records. Records shall be retained for the periods of time required by Kansas radiation protection regulations.

(o) No person under 18 years of age shall be permitted to operate radiation producing equipment.

(p) Fluoroscopy shall be conducted by or under the direct supervision of a physician. (Authorized by K.S.A. 65-431; effective Jan. 1, 1969.)

28-34-13. Central sterilizing and supply. (a) Policies and procedures shall be established in writing for storage, maintenance, and distribution of supplies and equipment.

(b) Sterile supplies and equipment shall not be mixed with unsterile supplies, and shall be stored in dust-proof and moisture-free units. They shall be properly labeled.

(c) Sterilizers and autoclaves shall be provided of appropriate type and necessary capacity to adequately sterilize instruments, utensils, dressings, water, operating and delivery room materials, as well as laboratory equipment and supplies. The sterilizers shall have approved control and safety features. The accuracy of instruments shall be checked periodically by an approved method. Adequate surveillance methods for checking sterilization procedures shall be employed.

(d) The date of sterilization or date of expiration shall be marked on all sterile supplies, and unused items shall be resterilized in accordance

with written policies. (Authorized by K.S.A. 65-431; effective Jan. 1, 1969.)

28-34-14. Dietary department. (a) The dietary department shall be under the supervision of qualified personnel. A consultant dietitian may supervise the dietary department of a small hospital which does not employ a full-time qualified dietitian; a properly qualified food service supervisor may substitute if a qualified dietitian is not available.

(b) In the absence of a full-time dietitian or food service supervisor, there shall be a cook manager who is responsible for the daily management of the department.

(c) There shall be written policies for food storage, preparation, and service. Policies shall conform to good sanitation practices.

(d) The food and nutritional needs of patients shall be met in accordance with the recommended dietary allowance of the food and nutrition board of the national research council and in accordance with physician's orders.

(e) Regular menus and modifications for basic therapeutic diets shall be written at least one week in advance and posted in the kitchen.

(f) Adequate administrative, working, and storage space and facilities shall be provided. There shall be a separate storage area above floor level for food.

(g) There shall be a dining area appropriate to the needs of the hospital.

(h) Dumbwaiters or other transportation equipment shall not be used to transport simultaneously both clean and unclean dishes. Dumbwaiters and other transportation equipment shall be cleaned and disinfected daily.

(i) Equipment and facilities shall be adequate to allow storage, preparation, cooking, and serving of food and drink to patients, staff, and employees in a proper and sanitary manner. There shall be separate handwashing facilities in the food preparation and service area.

(j) Temperatures in food freezers shall be no higher than 0° Fahrenheit.

(k) Dishes and utensils shall be washed in water at 140° Fahrenheit, and shall be rinsed at 180° Fahrenheit.

(l) Food service personnel shall wear washable garments, hair nets covering all of the hair (for women), clean caps (for men), and shall keep hands and fingernails clean at all times.

(m) Foods being transported shall be pro-

tected from contamination and held at proper temperatures in clean containers or serving carts.

(n) All applicable codes and ordinances shall be met.

(o) Storage of toxic agents shall be prohibited in food preparation and food serving areas.

(p) Only grade "A" pasteurized milk shall be used. Milk and fluid milk products shall be served from the distributor's original containers or from a bulk container equipped with an approved dispensing device.

(q) All red meat and poultry shall be state or federally inspected and approved.

(r) Food returned on patient's trays shall not be reused. (Authorized by K.S.A. 65-431; effective Jan. 1, 1969.)

28-34-15. Laundry. (a) The hospital shall make provisions for the proper laundering of linen and washable goods.

(b) When linen is laundered outside of the hospital, the hospital shall be responsible to assure that the requirements of these standards are covered in the terms of the contract or agreement.

(c) Hospital employees involved in transporting, processing, or otherwise handling clean or soiled linen shall be properly trained to ensure patient and employee safety.

(d) No laundry operations shall be carried out in patient care areas, nor in areas where food is prepared, served, or stored.

(e) All soiled linen shall be clearly identified.

(f) Soiled linen from infectious or isolation areas shall be bagged, marked, and laundered separately.

(g) Soiled diapers and nursery linen shall be washed separately.

(h) Soiled linen shall be sorted only in the sorting area.

(i) The washing and rinsing process shall be adequate to provide protection to patients and personnel. The temperature of water during the washing process shall be controlled to provide minimum temperature of 165° Fahrenheit for 25 minutes.

(j) Personnel handling soiled linen shall wash their hands after completing work with soiled linen.

(k) The finished "clean" linen and other washable goods shall be transported to the storage area or nursing units in conveyances used exclusively for "clean" goods.

(l) Clean linen stored in storage areas or on

nursing units shall be in closets, shelves, conveyances, or rooms used exclusively for this purpose.

(m) All clean linen being transported shall be protected from contamination.

(n) Adequate space and equipment shall be provided for the laundry operation of the hospital.

(o) Sanitation controls shall be maintained.

(p) Laundry chutes shall be used only for soiled linen that has been properly bagged. (Authorized by K.S.A. 65-431; effective Jan. 1, 1969.)

28-34-16. (Authorized by K.S.A. 65-431; effective Jan. 1, 1969; revoked June 28, 1993.)

28-34-16a. Emergency services. (a) Emergency services plans. Each hospital shall maintain a comprehensive, written emergency services plan based on community need and on the capability of the hospital. This plan shall include procedures whereby an ill or injured person can be addressed and either treated, referred to an appropriate facility or discharged. Regardless of the scope of its services, each hospital shall provide and maintain equipment necessary to institute essential life-saving measures for inpatients and, when referral is indicated, shall arrange for necessary transportation.

(b) Organized emergency services. In hospitals with organized emergency services, the following shall apply.

(1) Emergency services shall be available 24 hours a day, and medical staff coverage shall be adequate so that the patient will be seen within a period of time which is reasonable relative to the severity of the patient's illness or injury.

(2) No patient shall be transferred until the patient has been stabilized. A written statement of the patient's immediate medical problem shall accompany the patient when transferred. Every patient seeking medical care from the emergency services who is not in need of immediate medical care or for whom services cannot be provided by the hospital shall be given information about obtaining medical care.

(3) The emergency service, regardless of its scope, shall be organized and integrated with other departments of the hospital.

(4) The service shall be directed by a physician. The governing body shall adopt a written statement defining the qualifications, duties, and authority of the director. In the absence of a single physician, the direction of emergency medical services may be provided through a multidisciplinary medical staff committee, including at least

one physician. The chairperson of this committee shall serve as director.

(5) The emergency nursing service shall be directed and supervised by a registered nurse with training in cardiopulmonary resuscitation. At least one registered nurse with this training shall be available at all times.

(6) The emergency service area shall be located near an outside entrance to the hospital and shall be easily accessible from within the hospital. Suction and oxygen equipment and cardiopulmonary resuscitation units shall be available and ready for use. This equipment shall include equipment used for tracheal intubation, tracheotomy, ventilating bronchoscopy, intra-pleural decompression and intravenous fluid administration. Standard drugs, parental fluids, plasma substitutes and surgical supplies shall be on hand for immediate use in treating life-threatening conditions.

(7) Written policies and procedures which delineate the proper administrative and medical procedures and methods to be followed in providing emergency care shall be established. A medical record shall be kept for each patient receiving emergency services and it shall be made a part of any other patient medical record maintained in accordance with K.A.R. 28-34-9a and amendments thereto.

(c) Cessation of organized emergency services. Any hospital ceasing to provide organized emergency services, at least 30 days prior to such action, or as soon as possible, shall:

(1) Document approval of the governing body of the closure of the organized emergency services;

(2) notify the licensing agency;

(3) place a legal public notice in the local newspaper of such cessation of services; and

(4) notify the Kansas department of transportation and the Kansas board of emergency medical services. (Authorized by and implementing K.S.A. 65-431; effective June 28, 1993.)

28-34-17. (Authorized by K.S.A. 65-431; effective Jan. 1, 1969; revoked June 28, 1993.)

28-34-17a. Anesthesia services. (a) General provisions. Anesthesia care shall be regularly available when the hospital provides surgical or obstetrical services.

(b) Personnel.

(1) The department of anesthesia shall be responsible for all anesthetics administered.

(2) In hospitals where there is no department

of anesthesia, the director of surgical services shall assume the responsibility for establishing general policies relating to administration of anesthetics. When there is a department of anesthesia, it shall be directed by a member of the medical staff with appropriate clinical and administrative experience.

(3) The responsibilities of the director shall be established by the governing body and shall include the following:

(A) Establishing criteria and procedures for the evaluation of the quality of all anesthesia care rendered in the hospital;

(B) making recommendations regarding necessary equipment for administering anesthesia and related resuscitation efforts;

(C) developing hospital rules concerning anesthesia safety; and

(D) participating in the hospital's program of cardiopulmonary resuscitation and in consultations regarding management of acute and chronic respiratory insufficiency.

(c) Anesthesia shall be provided only by a qualified individual licensed by the Kansas board of healing arts, the Kansas board of nursing, or the Kansas dental board to administer anesthesia. Anesthesia may also be administered by physicians who are residents in anesthesia or student nurse anesthetists under the supervision of an individual licensed to administer anesthesia.

(d) Policies.

(1) The governing body shall determine the extent of anesthesia services and shall define the degree of collaboration required for the administration of anesthesia. Certified registered nurse anesthetists shall work in an interdependent role with other practitioners.

(2) Each patient requiring anesthesia shall have a pre-anesthesia evaluation by a qualified anesthesia provider regarding the choice of anesthesia.

(3) Each patient's condition shall be reviewed immediately prior to induction. This shall include a review of the patient's medical record with regard to completeness of pertinent laboratory data and an appraisal of any changes in the condition of the patient as compared with that noted on the patient's medical record.

(4) Following the procedure for which anesthesia was administered, the anesthetist or a designee shall remain with the patient as long as required by the patient's condition relative to the patient's anesthesia status and until responsibility

for proper patient care has been assumed by other qualified individuals.

(5) A record of events taking place during the induction and maintenance of and emergence from anesthesia, including the dosage and duration of all anesthetic agents, other drugs, intravenous fluids and blood or blood fractions, shall be made.

(e) Safety precautions. The governing body, through the director of anesthesia services, shall adopt rules for safe practice in anesthetizing locations. These rules shall be substantially similar to the requirements prescribed in appendix B of NFPA No. 56A (1973), "standard for the use of inhalation anesthetics," as published by the national fire protection association, Boston, Massachusetts. Separate rules shall be adopted for hospitals having flammable anesthetizing locations, nonflammable anesthetizing locations or mixed flammable and nonflammable anesthetizing locations. Flammable anesthetizing agents shall include cyclopropane, divinyl ether, ethyl ether, fluoroene, ethyl chloride and ethylene. (Authorized by and implementing K.S.A. 65-431; effective June 28, 1993.)

28-34-17b. Surgical services. (a) General provisions. Surgical services shall be provided in a manner sufficient to meet the medical needs of the patients.

(b) Personnel.

(1) The director of surgical services shall be a qualified member of the medical staff with appropriate surgical and administrative experience.

(2) A roster of medical staff members, with a delineation of the surgical privileges granted to each, shall be maintained in the surgical suite and available to the surgical nurse supervisor.

(3) Surgical suite nursing services shall be under the direction and supervision of a registered nurse who is qualified by training and experience in operating room management and techniques. At least one registered nurse shall be on duty in the recovery room whenever the room is occupied.

(c) Facilities.

(1) Admission of patients, personnel and visitors to the surgical suite shall be controlled in accordance with written policies.

(2) The following equipment shall be immediately available to the surgical suite:

(A) A call system;

(B) a cardiac monitor;

- (C) a resuscitator;
- (D) a defibrillator;
- (E) an aspirator;
- (F) a thoracotomy set; and
- (G) a tracheotomy set.

(3) Facilities for blood transfusions shall be available at all times.

(d) Policies. The medical staff shall develop written policies and procedures governing surgical services. These shall include:

(1) Appointment procedures which fairly evaluate the quality and competence of each surgeon seeking appointment to the surgical staff;

(2) reappointment procedures which provide for the periodic reappraisal of the qualifications and competence of each surgeon;

(3) criteria to determine the circumstances which require the presence of an assistant during surgery and to determine whether the assistant should be a physician or professional or nonprofessional personnel;

(4) procedures requiring that preoperative and postoperative medical records are completed in a timely and accurate manner. An accurate and complete description of findings and techniques of operation shall be made within 24 hours after operation by the surgeon who performed the operation; and

(5) procedures requiring that all tissues removed at surgery be examined by a physician whose report shall become a part of the patient's medical record.

(e) Operating room register. An operating room register shall be provided and maintained on a current basis. This register shall contain the date of the operation, the name and number of the patient, the names of surgeons and surgical assistants, the name of the anesthetist, the type of anesthesia given, preoperative and postoperative diagnosis, the type of surgical procedure and the presence or absence of complications in surgery. (Authorized by and implementing K.S.A. 1991 Supp. 65-431; effective June 28, 1993.)

28-34-18. (Authorized by and implementing K.S.A. 65-431; effective Jan. 1, 1974; revoked May 1, 1986.)

28-34-18a. Obstetrical and newborn services. (a) General provisions. If the hospital provides obstetrical and newborn services, they shall be provided in a manner sufficient to meet the medical needs of the patients.

(b) Personnel.

(1) The director of the obstetrical services shall be a member of the medical staff who has experience in obstetrics. The director of the newborn nursery service shall be a member of the medical staff who has experience in pediatrics. The obstetrical and newborn nursing services, including labor, delivery, recovery, and postpartum care, shall be under the supervision of a registered professional nurse qualified by education and experience to provide nursing care to the obstetric and newborn patients.

(2) Personnel qualified to administer inhalation and regional anesthesia shall be readily available. A registered professional nurse shall be available to supervise staff who are monitoring labor, delivery, recovery, and postpartum patients. Labor, delivery, and recovery rooms, when occupied, shall have continuous coverage by nursing staff qualified by education and experience in intrapartum and postdelivery care. The newborn nursery shall be under the supervision of a registered professional nurse qualified by education and experience in the care of normal and high-risk infants.

(c) Facilities and equipment. The obstetrical and newborn services shall include facilities to provide for labor, delivery, recovery, postpartum, and newborn care in a designated area.

(1) Each labor room shall have access to the following:

- (A) Toilet facilities;
- (B) handwashing facilities in or immediately adjacent to each labor room;
- (C) oxygen and suction equipment;
- (D) a nurse call system;
- (E) an emergency delivery pack;
- (F) resuscitation equipment;
- (G) a fetal monitor;

(H) intravenous therapy solutions and equipment; and

(I) emergency tray with drugs appropriate to obstetrical emergencies.

(2) Each delivery room shall have access to the following:

(A) Equipment appropriate for maternal and newborn resuscitation, including suction, airways, endotracheal tubes, and ambubags;

(B) equipment for administration of inhalation and regional anesthetics;

(C) a functioning source of emergency electrical power;

(D) an emergency call or intercommunication system;

(E) oxygen and suction equipment which can be accurately regulated;

(F) a fetal monitor;

(G) supplies and instruments for emergency Cesarean section;

(H) a scrub sink with foot, knee, or elbow control;

(I) prophylactic solution approved by the licensing agency for instillation into eyes of newborn pursuant to K.S.A. 65-153 and K.A.R. 28-4-73 and any amendments thereto;

(J) a method for identification of the newborn and mother;

(K) a movable, heated bassinet, a bassinet with a radiant warmer, or a transport isolette for the newborn while in the delivery room and during transport from the delivery room; and

(L) a sink with foot, knee, or elbow control.

(3) Each normal or neonatal intensive care nursery shall have access to the following:

(A) A bassinet or isolette for the exclusive use of each infant and for storage of individualized equipment and supplies;

(B) oxygen, oxygen analyser, and suction equipment which can be accurately regulated;

(C) phototherapy light;

(D) intravenous infusion solutions and equipment. A pump shall also be available;

(E) sink with foot, knee, or elbow control; and

(F) newborn resuscitation equipment.

(d) General requirements.

(1) When an infected patient is delivered in the delivery room, an established infection control protocol shall be followed. An operating room may be used for delivery when the delivery rooms are occupied and for Cesarean sections or obstetrical complications.

(2) Any room may be used as a birthing room when the hospital has a birthing room program that is approved by the licensing agency.

(3) Newborn services shall provide for newborn recovery, observation, and isolation, and for high-risk infants, access to care in a neonatal intensive care nursery either at the hospital of birth or by transfer to a hospital with a neonatal intensive care unit.

(4) All necessary supplies shall be stored in covered containers to permit individualized care.

(e) Procedures and policies. The directors of the obstetrical and newborn services, in cooperation with nursing service, shall develop procedures and policies which shall be available to the

medical and nursing staff. Minimal procedures shall include the following:

(1) Oxygen shall be administered only with proper apparatus for its safe administration and control of concentration. Concentrations of oxygen shall not exceed a safe level commensurate with current concepts of oxygen therapy.

(2) Identification shall be attached to the mother and newborn infant before they are removed from the delivery room.

(3) Hospital infection control protocol shall be followed with each patient admitted to the labor and delivery, nursery, or postpartum areas with suspected or confirmed transmissible infection.

(4) Each newborn shall be transported to the mother's room or other units outside the nursery in an individual bassinet.

(5) Each infant shall be tested for phenylketonuria, congenital hypothyroidism, and galactosemia prior to being discharged.

(6) Additional policies shall be adopted concerning, at minimum, the following:

(A) The use of oxytocic drugs and the administration of anesthetics, sedatives, analgesics, and other drugs;

(B) the development of a current roster of physicians with a delineation of their obstetrical privileges. The roster shall be maintained and made available to personnel;

(C) the housing of gynecology patients on the maternity unit;

(D) the presence of fathers or other support persons in the labor, delivery, and birthing rooms;

(E) the protocol for visitors to labor and recovery patients and to the nursery and postpartum units;

(F) attire and handwashing protocols for obstetrical and newborn unit staff and other hospital staff entering these units;

(G) the flow of hospital staff between the obstetric and newborn units and other patient care areas;

(H) the procedure for obtaining blood samples for newborn screening lists, in compliance with K.S.A. 65-180 et seq. and any amendments to it, prior to newborn discharge;

(I) the procedure for reporting to the licensing agency within 48 hours when two or more infants in a nursery demonstrate simultaneous evidence of an infectious disease of a similar nature;

(J) an infection control program for labor, delivery, postpartum, and nursery area which shall include specific procedures for patient isolation

and the cleaning, disinfection, and sterilization of patient areas, equipment, and supplies.

(K) arrangements for implementing patient education programs and family-centered care and for promoting parental/sibling/newborn attachment and initiation of breastfeeding;

(L) a system to facilitate coordination of prenatal and postpartum referral and follow up for mothers and newborns at risk and those being discharged less than 24 hours post delivery;

(M) a defined routine for care of obstetrical and newborn patients;

(f) Perinatal Committee. The hospital shall establish an obstetrical and newborn services committee to monitor, evaluate, and recommend the provision of patient services. The committee membership shall include appropriate medical and nursing staff personnel. (Authorized by and implementing K.S.A. 65-431; effective May 1, 1986.)

28-34-19. Pediatric department. Hospitals with an organized pediatric department shall provide facilities for the care of children, apart from the services for adult patients and from the newborn nursery, and there shall be proper facilities and procedures for the isolation of children with infectious, contagious or communicable conditions.

(a) The pediatric department shall be under the supervision of a designated staff physician.

(b) Hospitals providing pediatric care shall be evaluated and approved on the basis of the size of the service, the personnel, facilities, policies, and procedures.

(c) The newborn nursery and the pediatric department shall not be used for boarding care of illegitimate, dependent, neglected, or defective children. If, at the end of the period for which progressive medical care is indicated, the hospital is unable to properly discharge such infants, their presence shall be reported to the division of maternal and child health of the state department of health for suitable action by said department.

(d) Policies shall be established to cover conditions under which parents may stay with small children or "room-in" with their hospitalized child for moral support and assistance with care.

(e) There shall be appropriate referrals to public health nurses or other agencies for followup care as needed.

(f) Adolescents shall be separated from younger children. Reasonable privacy, without

limiting necessary observation, shall be available for adolescents. (Authorized by K.S.A. 65-431; effective Jan. 1, 1969.)

28-34-20. (Authorized by K.S.A. 65-431; effective Jan. 1, 1969; revoked June 28, 1993.)

28-34-20a. Outpatient and short-term procedure services. (a) General provisions. If the hospital provides outpatient services, those services shall be rendered in an effective and timely manner and shall be given only on the order of a physician or practitioner.

(b) Outpatient services.

(1) The director of the outpatient service shall possess qualifications that are consistent with the criteria, authority and duties defined in a written statement adopted by the hospital. The service shall be staffed with sufficient qualified personnel to meet the needs of the patients.

(2) Each outpatient service facility in which patient medical care is delivered shall be designed to ensure the privacy of each patient and the confidentiality of the patient's disclosures. Consultation and examination rooms or cubicles appropriate to the size of the service shall be available for the use of the staff.

(c) Short-term procedure services.

(1) If the hospital maintains a short-term procedure unit for treating patients requiring surgery on an outpatient basis, the unit shall be established and administered according to procedures developed by the medical staff and adopted by the governing body. Provision shall be made for back-up services by other departments in the case of emergencies or complications.

(2) The following basic facilities shall be provided when outpatient surgery is performed:

(A) An appropriately equipped and staffed operating room and postoperative recovery room;

(B) appropriate means of control against the hazards of infection, electrical or mechanical failure, fire or explosions;

(C) facilities for sterilizing equipment and supplies for maintaining sterile techniques;

(D) appropriate equipment and instrumentation for anesthesia, emergency cardiopulmonary resuscitation and other physiologic support;

(E) a readily available oxygen supply with emergency tanks; and

(F) readily available suction equipment.

The operating room shall be located so that it does not directly connect with a corridor used for general through traffic.

(d) Policies and procedures.

(1) Policies and procedures shall be developed to guide personnel in the effective implementation of the objectives of the outpatient services.

(2) Outpatient services shall be provided in accordance with established policies and procedures. In hospitals which do not provide an organized emergency service but provide outpatient services, outpatient services shall be provided during regularly scheduled hours. The hours of operation for the outpatient service shall be posted in the outpatient service waiting area. (Authorized by and implementing K.S.A. 1991 Supp. 65-431; effective June 28, 1993.)

28-34-21. (Authorized by K.S.A. 65-431; effective Jan. 1, 1969; revoked March 23, 2001.)

28-34-22. Physical therapy department. In hospitals where organized departments of physical therapy are established the following shall apply:

(a) Physical therapy services shall be under the direction of a physician.

(b) At least one registered physical therapist shall be employed for the department. In hospitals where the day-to-day services are provided by a physical therapy assistant or other supportive personnel, a part-time or consulting physical therapist shall be utilized to provide general supervision of the department.

(c) Other professional or supportive personnel shall be included as required to assure adequate patient care. All personnel shall be qualified by training or experience for the services they are rendering.

(d) Policies for the physical therapy department shall be written and shall be reviewed and revised as necessary.

(e) When a patient is referred to the physical therapy department, the treatment to be administered shall be recorded on the patient's chart, including all pertinent details of the treatment procedure.

(f) Records of inpatients and outpatients treated in the physical therapy department shall be maintained. The date of each patient visit shall be recorded as well as modalities employed and the area or areas treated. Patient progress notes shall be maintained.

(g) Facilities, space, and equipment required shall depend upon the physical therapy services provided, but shall be sufficient to assure adequate care. The equipment shall be maintained in

proper working condition to assure adequate patient benefit. (Authorized by K.S.A. 1973 Supp. 65-431; effective Jan. 1, 1969; amended Jan. 1, 1974.)

28-34-23. Inhalation or respiratory therapy department. In hospitals with an organized inhalation department, the following shall apply:

(a) Inhalation or respiratory therapy services shall be under the guidance of a designated staff physician.

(b) Equipment shall be appropriate for the services provided and shall be checked periodically by the hospital for performance.

(c) The personnel working in the department shall be qualified for the type of services performed.

(d) Supplies shall be kept and stored in a manner that promotes safety in the hospital. (Authorized by K.S.A. 1973 Supp. 65-431; effective Jan. 1, 1974.)

28-34-24. Social services department. In hospitals with an organized department of social services, the following shall apply:

(a) The department shall be under the guidance of a qualified social worker.

(b) Appropriate facilities and personnel shall be provided in accordance with the hospital's program.

(c) Records shall be kept of the social services provided. (Authorized by K.S.A. 1973 Supp. 65-431; effective Jan. 1, 1974.)

28-34-25. Occupational therapy department. In hospitals with an organized occupational therapy department, the following shall apply:

(a) The department shall be under the guidance of a qualified occupational therapist.

(b) Facilities and personnel shall be provided commensurate with the hospital's program.

(c) Records shall be kept on the services provided. (Authorized by K.S.A. 65-431; effective Jan. 1, 1974.)

28-34-26 through 28-34-28. (Authorized by K.S.A. 1973 Supp. 65-431; effective Jan. 1, 1974; revoked March 23, 2001.)

28-34-29. (Authorized by and implementing K.S.A. 65-421; effective Jan. 1, 1974; revoked May 1, 1986.)

28-34-29a. Long-term care unit. (a) General provisions. If the hospital provides a long-

term care service, such service shall be provided in a manner that meets the medical, rehabilitative, and social needs of the patient.

(b) Scope of services.

(1) The long-term service shall have a written program of restorative nursing care. This program shall be an integral part of nursing services and shall be directed toward assisting the patient to achieve and maintain an optimum level of self-care and independence.

(2) In addition to restorative services, the unit shall provide or arrange for specialized rehabilitation services by qualified personnel as needed by patients to improve and maintain functioning. Services shall include physical therapy, speech pathology, audiology, and occupational therapy and shall be provided by qualified personnel.

(3) A written, overall care plan shall be developed for each long-term care patient from an interdisciplinary assessment of the patient. The interdisciplinary assessment shall consist of medical, nursing, dietary, activities, and psychosocial diagnoses or evaluations.

(c) Medical direction. A member of the medical staff shall be assigned responsibility for the medical direction of the service. The director shall be responsible for the overall coordination of medical care in the unit and shall participate in the development of policies and procedures for patient care, including the delineation of responsibilities of attending physicians.

(d) Nursing services.

(1) The nursing services director shall have the overall responsibility of providing nursing services. The immediate supervisor of nursing personnel assigned to long-term care services shall be a registered nurse employed on the day shift and whose responsibilities shall be limited to the long-term care unit. Licensed nursing personnel shall be in the building at all times to be available as needed to provide services in the long-term care unit.

(2) Nursing personnel shall be assigned duties consistent with their education and experience. Each nurse aide shall be trained and examined in accordance with K.A.R. 28-39-79 and K.A.R. 28-39-80. Each nurse aide trainee who provides direct, individual care to patients shall be under the direct, onsite supervision of a licensed nurse. Each nurse aide trainee shall complete requirements for and obtain certification as a nurse aide within six months of employment.

(3) Each patient shall receive direct, individual

patient care at a minimum weekly average of 2.0 hours per 24 hours, and a daily average of not fewer than 1.85 hours during any 24-hour period. Only care provided by personnel exclusively assigned to the long-term care service, including nursing personnel, the activities director, and the social services designee, shall be considered in meeting the care requirements.

(e) Restraints. A signed physician's order shall be required for any restraint. The order shall include justification, type of restraint, and duration of application. A patient shall not be restrained unless, in the written opinion of the attending physician, restraints are required to prevent injury to the patient or to others.

(f) Patient care and hygiene. The long-term care service shall provide supportive services to maintain the patients' comfort and hygiene as follows:

(1) Patients confined to bed shall receive a complete bath every other day or more often as needed.

(2) Incontinent patients shall be checked at least every two hours and shall be given partial baths and clean linens promptly when the bed or clothing is soiled.

(3) Pads shall be used to keep the patients dry and comfortable.

(4) Rubber, plastic, or other types of protectors shall be kept clean, completely covered, and not in direct contact with the patients.

(5) Soiled linen and clothing shall be removed immediately from the patients' rooms to prevent odors.

(6) Fresh water shall be available for each patient. For each non-ambulatory patient, fresh water or other fluids shall be available at the bedside at all times unless fluids are restricted by physician's order.

(7) Each patient shall be assisted with oral hygiene to keep mouth, teeth, or dentures clean. Measures shall be taken to prevent dry, cracked lips.

(8) A written, ongoing program for skin care shall be implemented as follows:

(A) Bony prominences and weight-bearing parts, such as heels, elbows, and back, shall be bathed and given care frequently to prevent discomfort and the development of pressure sores.

(B) Treatment for pressure sores shall be given according to written physician's orders.

(C) The position of each patient confined to

bed shall be changed at least every two hours during the day and night.

(D) Each patient shall be positioned in good body alignment.

(E) Precautions shall be taken to prevent foot drop in bed patients.

(g) Restorative nursing care. Each nursing personnel shall receive regular staff development training sessions in restorative techniques. Documentation of such training shall be maintained.

(h) Specialized rehabilitative services.

(1) Rehabilitation needs shall be met either through services provided directly by the hospital or through arrangements with qualified outside resources.

(2) Commensurate with the services offered, adequate space and equipment shall be available.

(3) Each rehabilitative service performed shall be recorded in the patient's record and shall be signed and dated by the person providing the service.

(4) Written policies and procedures shall be developed for specialized rehabilitative services with input from qualified therapists and representatives of the medical, administrative, and nursing staffs.

(5) A written plan of care, initiated by the attending physician and developed in consultation with the therapist or therapists involved and with nursing services, shall be developed for each patient receiving rehabilitative services. A report of the patient's progress shall be communicated to the attending physician within two weeks of the initiation of the service. Thereafter, the patient's progress shall be reviewed and revised on not less than a quarterly basis.

(i) Social services. The long-term care service shall have methods for identifying the medically-related, psychosocial needs of each patient. Needs shall be met by qualified staff of the hospital or by referral to an outside resource through established procedures. (Authorized by and implementing K.S.A. 65-431; effective May 1, 1986.)

28-34-30. (Authorized by K.S.A. 1973 Supp. 65-431; effective Jan. 1, 1974; revoked March 23, 2001.)

28-34-31. General sanitation and housekeeping. (a) Hospitals shall comply with applicable codes.

(b) Suitable equipment shall be provided for the regular cleaning of all interior surfaces. Operating and delivery rooms shall be thoroughly

cleaned after each operation or delivery. Patient rooms shall be thoroughly cleaned after discharge. No wax shall be applied to conductive floors which will render them nonconductive. Adequate and conveniently located spaces shall be provided for the storage of janitorial supplies and equipment.

(c) The premises shall be kept neat, clean, and free of rubbish.

(d) Housekeeping procedures shall be written.

(e) All garbage and waste shall be collected, stored, and disposed of in a manner that will not encourage the transmission of contagious disease. Containers shall be washed and sanitized before being returned to work areas or shall be disposable.

(f) All openings to the outer air shall be effectively protected against the entrance of insects and other animals by self-closing doors, closed windows, screening, controlled air currents, or other effective means. Screening material shall not be less than 16 mesh to the inch or equivalent.

(g) A sufficient supply of cloth or disposable towels shall be available so that a fresh towel can be used after every handwashing. Common towels are prohibited.

(h) There shall be adequate handwashing facilities conveniently located.

(i) Common drinking cups shall be prohibited.

(j) Dry sweeping and dusting shall be prohibited. Use of a rotary buffer shall be prohibited in areas such as isolation to aid in reducing the spread of pathogenic bacteria.

(k) Adequate and conveniently located toilet facilities shall be provided.

(l) Periodic checks shall be made throughout the buildings and premises to enforce sanitation procedures. The times and results of such checks shall be recorded. (Authorized by K.S.A. 1973 Supp. 65-431; effective Jan. 1, 1974.)

28-34-32. (Authorized by and implementing K.S.A. 65-421; effective Jan. 1, 1974; revoked May 1, 1986.)

28-34-32a. (Authorized by and implementing K.S.A. 65-431; effective May 1, 1986; revoked June 28, 1993.)

28-34-32b. Construction standards. (a) General provisions. All hospital construction, including new buildings and additions or alterations to existing buildings, shall be in accordance with the standards set forth in the American institute of architects academy of architecture for health,

publication no. ISBN 1-55835-151-5, entitled "1996-97 guidelines for design and construction of hospital and health care facilities," copyrighted in 1996, and hereby adopted by reference.

(b) Construction plans and specifications.

(1) Plans and specifications for each new hospital and each alteration and addition to any existing hospital, other than minor alterations, shall be prepared by an architect licensed in Kansas. "Minor alterations" means those projects that meet the following conditions:

(A) Do not affect the structural integrity of the building;

(B) do not change functional operation;

(C) do not affect fire safety; and

(D) do not add beds or facilities over those for which the hospital is licensed.

(2) The preliminary plan, plans and specifications at the outline specification stage, and plans and specifications at the contract document stage shall be made available to the licensing agency upon request.

(3) The preliminary plans shall include the following:

(A) Sketch plans of the basement, each floor, and the roof, indicating the space assignment, size, and outline of fixed equipment;

(B) all elevations and typical sections;

(C) a plot plan showing roads and parking facilities; and

(D) areas and bed capacities by floors.

(4) The outline specifications shall consist of a general description of the construction, air conditioning, heating, and ventilation systems.

(5) Contract documents shall consist of working drawings that are complete and adequate for bidding, contract, and construction purposes. Specifications shall supplement the drawings to fully describe the types, sizes, capacities, workmanship, finishes, and other characteristics of all materials and equipment. Before commencing construction, the architect shall certify, in writing, to the agency that the contract documents are in compliance with subsections (a), (b), and (c) of this regulation. The written certification shall also include the following:

(A) The name of the facility;

(B) a narrative description of extent of the project;

(C) the physical location of the project;

(D) any change in room numbers and bed assignments; and

(E) the expected completion date of the project

to the licensing agency, which shall be provided at least 30 days before the project completion date.

(c) The administrator of the facility shall notify the state fire marshal's office of all hospital construction, alterations, or additions at the preliminary planning stage.

(d) Access. Representatives of the licensing agency shall, at all reasonable times, have access to work in preparation or progress, and the contractor shall provide proper facilities for the access and inspection. A complete set of plans and specifications shall be available on the job site for use by licensing agency personnel. (Authorized by and implementing K.S.A. 65-431; effective June 28, 1993; amended Feb. 9, 2001.)

28-34-33 to 28-34-49. Reserved.

PART 2.—AMBULATORY SURGICAL CENTERS

28-34-50. Definitions. (a) "Administrator" means an individual appointed by the governing body to act on its behalf in the overall management of the ambulatory surgical center.

(b) "Ambulatory surgical center" means an establishment with the following:

(1) An organized medical staff of one or more physicians;

(2) permanent facilities that are equipped and operated primarily for the purpose of performing surgical procedures and do not provide services or other accommodations for patients to stay more than 24 hours;

(3) continuous physician services during surgical procedures and until the patient has recovered from the obvious effects of anesthesia, and at all other times with continuous physician services available whenever a patient is in the facility; and

(4) continuous registered professional nursing services whenever a patient is in the facility.

Before discharge from an ambulatory surgical center, each patient shall be evaluated by a physician for proper anesthesia recovery. Nothing in this regulation shall be construed to require the office of a physician or physicians to be licensed under this act as an ambulatory surgical center.

(c) "Anesthesiologist" means a physician who is licensed in Kansas to practice medicine and surgery and who has successfully completed a post-graduate medical education program and training program in anesthesiology.

(d) "Change of ownership" means any trans-

action that results in a change of control over the capital assets of an ambulatory surgical center.

(e) "Clinical laboratory improvement amendments" or "CLIA" is as published in 42 C.F.R. Part 493, as in effect on October 1, 1996 and hereby adopted by reference.

(f) "Dentist" means a person licensed in Kansas to practice dentistry.

(g) "Drug administration" means the direct application of a drug or biological, either by injection, inhalation, ingestion, or any other means, to the body of a patient by one of the following:

(1) A practitioner or individual pursuant to the lawful direction of a practitioner who is acting within the scope of that practitioner's license and who is qualified according to medical staff bylaws; or

(2) the patient at the direction and in the presence of a practitioner.

(h) "Drug dispensing" means delivering prescription medication to the patient pursuant to the lawful order of a practitioner.

(i) "Facilities" means buildings, equipment, and supplies necessary for delivery of ambulatory surgical center services.

(j) "Governing authority" means a board of directors, governing body, or individual in whom the ultimate authority and responsibility for management of the ambulatory surgical center is vested.

(k) "Licensing department" means the Kansas department of health and environment.

(l) "Licensed practical nurse (L.P.N.)" means an individual licensed in Kansas as a licensed practical nurse.

(m) "Medical staff" means a formal organization of physicians, dentists, and other practitioners who are appointed by the governing authority to attend patients within the ambulatory surgical center. Surgical procedures shall be performed only by practitioners within the scope of their practice who at the time are privileged to perform these procedures in at least one licensed hospital in the community in which the ambulatory surgical center is located, or the ambulatory surgical center shall have a written transfer agreement with the hospital.

(n) "Nursing services" means patient care services pertaining to the curative, restorative, and preventive aspects of nursing that are performed or supervised by a registered nurse pursuant to the medical care plan of the practitioner and the nursing care plan.

(o) "Organized" means administratively and functionally structured.

(p) "Organized medical staff" means a formal organization of physicians, dentists, and practitioners with the responsibility and authority to maintain proper standards of patient care as delegated by the governing authority.

(q) "Patient" means a person admitted to the ambulatory surgical center by and upon the order of a physician, or by a dentist in accordance with the orders of a physician who is a member of the medical staff.

(r) "Physician" means a person holding a valid license from the Kansas state board of healing arts to practice medicine and surgery.

(s) "Podiatrist" means a person holding a valid license from the Kansas state board of healing arts to practice podiatric medicine and surgery.

(t) "Practitioner" means a member of the ambulatory surgical center's medical staff and may include a physician or dentist.

(u) "Qualified nurse anesthetist" means any of the following:

(1) A registered nurse who has been certified as a nurse anesthetist by the council on certification of the American association of nurse anesthetists and has been authorized as a registered nurse anesthetist by the Kansas state board of nursing;

(2) a student enrolled in a program of nurse anesthesia by the council on accreditation of the American association of nurse anesthetists; or

(3) a graduate of an accredited program of nurse anesthesia who is awaiting certification testing or the results of the certification test and has been granted temporary authorization as a registered nurse anesthetist by the Kansas state board of nursing.

(v) "Registered nurse (R.N.)" means a person who is licensed in Kansas as a registered professional nurse.

(w) "Supervision" means authoritative procedural guidance by a qualified person for the accomplishment of a function or activity within that person's sphere of competence. Supervision shall include initial direction and periodic inspection of the actual act of accomplishing the function or activity.

(x) "Survey" means the process of evaluation or reevaluation of an ambulatory surgical center's compliance with this article. (Authorized by and implementing K.S.A. 2000 Supp. 65-429 and K.S.A. 65-431; effective Jan. 1, 1974; amended April 20, 2001.)

28-34-51. Licensing procedure. (a) No construction shall begin until plans and specifications covering the construction of new buildings, additions, or material alterations to existing buildings are submitted to the department, in writing, in accordance with K.A.R. 28-34-62a. A written narrative describing the intended use of the proposed construction shall accompany the plans and specifications.

(b) Ambulatory surgical centers shall be licensed to provide only those services for which they are qualified. The extent of the facility's compliance with this article may be documented by the department in one of the following ways:

(1) The statement of a responsible, authorized administrator or staff member, which shall include one of the following:

(A) Documentary evidence of compliance provided by the facility; or

(B) answers by the facility to detailed questions provided by the licensing department concerning the implementation of any provisions of this article or examples of this implementation that allow a judgement about compliance to be made; or

(2) on-site observations by surveyors.

(c) The application for a license to establish or maintain an ambulatory surgical center shall be submitted to the licensing department. Each application shall be made in writing on forms provided by the department for a license for a new facility or for the renewal of a license for an existing facility. Applications for a license for each new facility shall be submitted at least 90 days before opening.

(d) Upon application for a license from a facility never before licensed, an inspection shall be made by the representative of the licensing department. Every building, institution, or establishment for which a license has been issued shall be periodically surveyed for compliance with the regulations of the licensing department.

(e) A license shall be issued by the department when both the following requirements are met:

(1) Construction is complete.

(2) The facility has completed an application form and is found to be in substantial compliance with K.S.A. 65-425 et seq., and amendments thereto, and K.A.R. 28-34-51 through K.A.R. 28-34-62a.

(f) If the facility is found to be in violation of this article, the applicant shall be notified in writing of each violation, and the applicant shall submit a plan of correction to the department. The

plan shall state specifically what corrective action will be taken and the date on which it will be accomplished.

(g) Each licensee shall file an annual report on forms prescribed by the department. The license may be suspended or revoked at any time for non-compliance with this article of the licensing department and in accordance with the Kansas administrative procedure act, K.S.A. 77-501 et seq., and amendments thereto.

(h) The licensing department shall be notified within 60 days of any change in ownership or location of an ambulatory surgical center, and a new application form shall be submitted to the licensing department in the event of such a change.

(i) Within 60 days of issuance of an initial license, or following a change of ownership, the administrator shall submit the following information to the licensing department:

(1) Verification of professional liability coverage for the ambulatory surgical center in compliance with K.S.A. 40-3401 et seq., and amendments thereto; and

(2) a risk management plan in compliance with K.A.R. 28-52-1.

(j) The current license certificate issued by the licensing department shall be framed and conspicuously posted on the premises. The license certificate shall remain the property of the licensing department. (Authorized by and implementing K.S.A. 2000 Supp. 65-429 and K.S.A. 65-431; effective Jan. 1, 1974; amended April 20, 2001.)

28-34-52. (Authorized by K.S.A. 1973 Supp. 65-431; effective Jan. 1, 1974; revoked April 20, 2001.)

28-34-52a. Patient rights. (a) The governing authority shall ensure that the facility establishes policies and procedures that support the rights of all patients. At a minimum, each facility shall ensure that each patient has a right to the following:

(1) Receive respectful care given from competent personnel;

(2) receive information of the proposed treatment or procedures to be performed, potential complications, and expected outcomes;

(3) make health care decisions;

(4) access information contained in the patient's medical record, within the limits of state law, by each patient or patient's designated representative;

(5) maintain privacy and security of self and be-

longings during the delivery of patient care service;

(6) be informed of expected services and financial charges and receive an explanation of the patient's bill; and

(7) be informed of the facility's policies regarding patient rights.

(b) Grievances and complaints. The facility's policies and procedures shall establish a mechanism for responding to patient grievances and complaints.

(c) Reporting of grievances or complaints. Each person having a grievance or complaint pertaining to the provision of any patient services in an ambulatory surgical center may direct the grievance or complaint to the licensing department.

(d) Reporting of abuse, neglect, or exploitation.

(1) Each administrator of an ambulatory surgical center shall be responsible for reporting any incidents of abuse, neglect, or exploitation of any patient, in accordance with K.S.A. 39-1401 et seq., and amendments thereto.

(2) Each administrator of an ambulatory surgical center shall be responsible for reporting any incidents of abuse or neglect of children in accordance with K.S.A. 38-1521 et seq., and amendments thereto. (Authorized by and implementing K.S.A. 65-431; effective April 20, 2001.)

28-34-52b. Assessment and care of patients. (a) Each patient admitted to the ambulatory surgical center shall be under the care of a practitioner who is a member of the medical staff.

(b) Patient care shall meet the needs of the patient and shall be provided by qualified personnel.

(c) An initial assessment of each patient shall be completed by qualified staff. The assessment shall include the following information:

(1) The patient's current physical status;

(2) a history and physical completed within 30 days before any procedure performed at the ambulatory surgical facility;

(3) the results of clinical laboratory tests or diagnostic reports;

(4) a preanesthesia evaluation conducted by a licensed, qualified practitioner granted clinical privileges by the medical staff and governing body; and

(5) the patient's nutritional status.

(d) Each patient's identity shall be verified before the administration of any medication.

(e) Blood and blood products may be administered only by a physician or a registered nurse.

(f) Each patient's status shall be evaluated during anesthesia administration and shall be evaluated by a physician for proper anesthesia recovery before discharge.

(g) The ambulatory surgical center shall have a written transfer agreement with a local hospital for the immediate transfer of any patient requiring medical care beyond the capability of the ambulatory surgical center, or each physician performing surgery at the ambulatory surgical center shall have admitting privileges with a local hospital.

(h) If a patient is transferred to another facility, essential medical information, including the diagnosis, shall be forwarded with the patient to ensure continuity of care.

(i) Each patient shall be discharged in the company of a responsible adult, unless this requirement is specifically waived by the attending physician.

(j) Discharge planning shall include education for each patient and caregiver. The patient education shall be interdisciplinary and include at least the following information:

(1) The patient's medical condition;

(2) the procedure and outcome of procedures performed;

(3) the need and availability of follow-up care; and

(4) the use of prescribed medication and medical equipment. (Authorized by and implementing K.S.A. 65-431; effective April 20, 2001.)

28-34-53. Governing authority. (a) The governing authority shall be the ultimate authority in the ambulatory surgical center, responsible for its organization and administration, including appointment of the medical staff, employment of an administrator, review and revision of policies and procedures, and maintenance of a physical plant equipped and staffed to adequately meet the needs of the patients.

(b) The governing authority shall be organized in accordance with its approved bylaws, policies, and procedures and shall be in conformance with the Kansas statutes governing ambulatory surgical centers. A copy of the ambulatory surgical center's current bylaws shall be available for review by the licensing department.

(c) Bylaws of the governing authority shall provide for the selection and appointment of medical

staff members based on defined criteria and in accordance with an established procedure for processing and evaluating applications for memberships. Each application for appointment and reappointment shall be submitted in writing and shall signify agreement of the applicant to conform with the bylaws of both the governing authority and medical staff and to abide by professional ethical standards.

(d) The governing authority shall demonstrate evidence of a liaison and close working relationship with the medical staff.

(e) The governing authority shall be responsible for the implementation of a risk management program, in accordance with K.S.A. 65-4921 et seq. and amendments thereto, and K.A.R. 28-52-1 through 28-52-4.

(f) The governing authority shall select and employ an administrator and shall notify the department of any change of administrator within five days after the change has been made.

(g) Each patient admitted to the ambulatory surgical center shall be under the care of a practitioner who is a member of the medical staff.

(h) The governing authority shall ensure that the ambulatory surgical center complies with the following:

(1) Defines, in writing, the scope of services provided;

(2) has an adequate number of qualified personnel; and

(3) maintains effective quality control, quality improvement, and data management activities. (Authorized by and implementing K.S.A. 65-431; effective Jan. 1, 1974; amended April 20, 2001.)

28-34-54. Medical staff. (a) The ambulatory surgical center shall have an organized medical staff, responsible to the governing authority of the ambulatory surgical center for the quality of all medical care provided to patients in the ambulatory surgical center and for the ethical and professional practices of its members.

(b) In each ambulatory surgical center, the medical staff, with the approval of and subject to final action by the governing authority, shall formulate and approve medical staff bylaws, policies, and procedures for the proper conduct of its activities and recommend to the governing authority practitioners considered eligible for membership on the medical staff, in accordance with K.A.R. 28-34-50(u).

(c) Each member of the medical staff shall be

granted privileges that are commensurate with the member's qualifications, experience, and present capabilities and that are within the practitioner's scope of practice.

(d) Each member of the medical staff shall submit a written application for staff membership on a form prescribed by the governing authority. After considering medical staff recommendations, the governing authority shall affirm, deny, or modify each recommendation for appointment to the medical staff.

(e) Surgical procedures shall be performed only by practitioners who have been granted privileges by the governing authority to perform surgical procedures.

(f) The medical staff of each ambulatory surgical center shall develop a policy stipulating which surgically removed tissues will be sent to a pathologist for review. This policy shall be approved by the governing authority.

(g) The medical staff bylaws shall require at least one physician member of the medical staff to be available to the ambulatory surgical center at all times that a patient is receiving or recovering from local, general, or intravenous sedation. The staffing shall meet the needs of the patients.

(h) The medical staff shall hold regular meetings for which records of attendance and minutes shall be kept.

(i) Medical staff committee minutes and information shall neither be a part of individual patient records nor be subject to review by other than medical staff members, except as otherwise provided by the governing authority.

(j) The medical staff shall review and analyze at regular intervals the clinical experience of its members and the medical records of patients on a sampling or other basis. All techniques and procedures involving the diagnosis and treatment of patients shall be reviewed periodically and shall be subject to change by the medical staff.

(k) The medical staff shall participate in risk management activities, in accordance with K.S.A. 65-4921 et seq., and amendments thereto, and K.A.R. 28-52-1 through 28-52-4, and with the ambulatory surgical center's risk management plan. Any ambulatory surgical center having a medical staff with fewer than two physician members shall include provisions for outside peer review in the risk management plan.

(l) All medical orders shall be given by a practitioner and recorded in accordance with the medical staff policies and procedures. All orders shall

be signed or either countersigned or initialed by the attending physician, dentist, or podiatrist.

(m) The medical staff and the governing authority shall review the medical staff privileges at least every two years. (Authorized by and implementing K.S.A. 65-431; effective Jan. 1, 1974; amended April 20, 2001.)

28-34-55. (Authorized by K.S.A. 1973 Supp. 65-431; effective Jan. 1, 1974; revoked April 20, 2001.)

28-34-55a. Human resources. (a) The ambulatory surgical center shall provide an adequate number of qualified staff to meet the needs of the patients.

(b) All nursing and ancillary staff employed by or contracted with the ambulatory surgical center shall be qualified and shall provide services consistent with the scope of practice granted by the license, registration, or certification regulations.

(c) One registered nurse shall be on duty at all times whenever a patient is in the ambulatory surgical center.

(d) The ambulatory surgical center shall provide all nursing and ancillary staff services in accordance with written policies and procedures consistent with professional practice standards and reviewed and revised, as necessary.

(e) The governing authority shall ensure that all employees are provided information related to the reporting of reportable incidents in accordance with the ambulatory surgical center's risk management plan.

(f) The governing authority shall ensure that ongoing staff education and training are provided to continually improve patient care services.

(g) The ambulatory surgical center shall maintain personnel records on each employee that shall include the job application, professional and credentialing information, health information, and annual performance evaluations. (Authorized by and implementing K.S.A. 65-431; effective April 20, 2001.)

28-34-56. (Authorized by K.S.A. 1973 Supp. 65-431; effective Jan. 1, 1974; revoked April 20, 2001.)

28-34-56a. Anesthesia services. (a) If there is a department of anesthesia, it shall be directed by a member of the medical staff with appropriate clinical and administrative experience. The clinical privileges of qualified anesthesia personnel shall be reviewed by the director of anes-

thesia services and the medical staff and approved by the governing authority.

(b) (1) An anesthesiologist or physician shall be on the premises and readily accessible during the administration of anesthetics, whether local, general, or intravenous, and the postanesthesia recovery period until all patients are alert or medically discharged from the postanesthesia area. Qualified anesthesia personnel shall be present in the room through the administration of all general anesthetics, regional anesthetics, and monitored anesthesia care and shall continuously evaluate the patient's oxygenation, ventilation, circulation, and temperature.

(2) The following equipment shall be available as the scope of practice requires:

(A) Oxygen analyzers;

(B) a pulse oximeter; and

(C) electrocardiography, blood pressure, resuscitation, and suction equipment.

(c) The medical staff, in consultation with qualified anesthesia personnel, shall develop policies and procedures on the administration of anesthetics and drugs that produce conscious and deep sedation and on postanesthesia care. These policies and procedures shall be approved by the governing authority.

(d) Before undergoing general anesthesia, each patient shall have a history and physical examination by a physician entered in the patient's record, including the results of any necessary laboratory examination. A physician shall examine the patient immediately before surgery and shall evaluate the risk of anesthesia and of the procedure to be performed.

(e) The anesthesiologist or anesthesiologist shall discuss anesthesia options and risks with the patient or family before surgery.

(f) Qualified anesthesia personnel shall develop a plan of anesthesia care with the physician or dentist. The patient records shall contain a pre-anesthetic evaluation and a postanesthetic note by qualified anesthesia personnel. Anesthesia services shall write postanesthetic policies and procedures. Follow-up notes shall include postoperative abnormalities or complications.

(g) Flammable anesthetics shall not be used in the ambulatory surgical center.

(h) Anesthesia shall be provided only by a qualified individual licensed to administer anesthesia by the Kansas board of healing arts, the Kansas board of nursing, or the Kansas dental board. Each certified registered nurse anesthetist shall

work in an interdependent role as a member of a physician- or dentist-directed health care team.

(i) All anesthetics shall be properly labeled and inventoried according to the facility's policies and procedures.

(j) All equipment for the administration of anesthetics shall be made available, cleaned with a facility-approved disinfectant and clean cloth, and maintained in good working condition.

(k) Written procedures and criteria for discharge from the recovery service shall be approved by the medical staff. Each patient who has received anesthesia shall be discharged in the company of a responsible adult, unless the requirement is specifically waived by the attending physician.

(l) There shall be a mechanism for the review and evaluation, according to the facility's policies and procedures, of the quality and scope of anesthesia services. (Authorized by and implementing K.S.A. 65-431; effective April 20, 2001.)

28-34-57. Medical records. (a) A medical record shall be maintained for each patient cared for in the ambulatory surgical center. The records shall be documented and retrievable by authorized persons.

(b) Each medical record shall be the property of the ambulatory surgical center. Only persons authorized by the governing authority shall have access to medical records. These persons shall include individuals designated by the licensing department for verifying compliance with the state or federal regulations, and for disease control investigations of public health concern.

(c) Each medical record shall be maintained in a retrievable form for 10 years after the date of last discharge of the patient, or one year after the date that the minor patient reaches the age of 18, whichever is greater.

(d) Each medical record shall contain the following information, if applicable:

- (1) Patient identification data;
- (2) patient consent forms;
- (3) patient history and physical;
- (4) clinical laboratory reports;
- (5) physician's or physicians' orders;
- (6) radiological reports;
- (7) consultations;
- (8) anesthesia records;
- (9) surgical reports;
- (10) tissue reports;
- (11) progress notes;

(12) a description of the care given to that patient based on the type of surgical procedure;

(13) the signature or initials of authorized personnel on notes or observations;

(14) the final diagnosis;

(15) the discharge summary;

(16) discharge instructions to the patient;

(17) a copy of transfer form; and

(18) the autopsy findings.

(e) Each record shall be dated and authenticated by the person making the entry. Nursing notes and observations shall be signed and dated by the registered nurse or licensed practical nurse making the entry. Verbal orders by authorized individuals shall be accepted and transcribed only by designated personnel.

(f) The ambulatory surgical center shall furnish, to the appropriate authority, all available information on deceased patients for completion of a death certificate.

(g) The medical record shall be completed within 30 days following the patient's discharge.

(h) Statistical data, administrative records, and records of reportable diseases as required shall be maintained and submitted by the ambulatory surgical center to the licensing department, as requested.

(i) Adequate space, facilities, and equipment shall be provided for completion and storage of medical records.

(j) Nothing in this article shall be construed to prohibit the use of properly automated medical records or use of other automated techniques, if these regulations are met. (Authorized by and implementing K.S.A. 65-431; effective Jan. 1, 1974; amended April 20, 2001.)

28-34-58. (Authorized by K.S.A. 1973 Supp. 65-431; effective Jan. 1, 1974; revoked April 20, 2001.)

28-34-58a. Infection control. (a) Each ambulatory surgical center shall establish and maintain an ongoing infection control program. The program shall be based upon guidelines established by the centers for disease control and the licensing department. The program shall include the following:

(1) Measures for the surveillance, prevention, and control of infections;

(2) the assignment of the primary responsibility for the program, as well as medical staff participation and review of findings, to an individual;

(3) written policies and procedures outlining

infection control measures and aseptic techniques;

(4) orientation and ongoing education provided to all personnel on the cause, effect, transmission, and prevention of infections;

(5) policies and procedures that require all employees to adhere to universal precautions to prevent the spread of blood-borne infectious diseases;

(6) policies and procedures related to employee's health;

(7) review and evaluation, according to the facility's policies and procedures, of the quality and effectiveness of infection control throughout the ambulatory surgical center; and

(8) provisions for reporting, to the licensing department, infectious or contagious diseases in accordance with K.A.R. 28-1-2.

(b) Personnel health requirements. Upon employment, each individual shall have a medical examination consisting of examinations appropriate to the duties of the employee, including a tuberculin skin test. Subsequent medical examinations or health assessments shall be given periodically in accordance with the facility's policies. Each ambulatory surgical center shall develop policies and procedures for the control of communicable diseases, including maintenance of immunization histories and the provision of educational materials for patient care staff. Cases of employees with tuberculin skin test conversion shall be reported to the Kansas department of health and environment.

(c) Any personnel having a condition detrimental to patient well-being, or suspected of having such a condition, shall be excluded from work until the requirements of K.A.R. 28-1-6 are met.

(d) Sanitation and housekeeping. Each ambulatory surgical center shall comply with the following procedures:

- (1) Be kept neat, clean, and free of rubbish;
- (2) develop written housekeeping procedures;
- (3) provide hand-washing facilities; and
- (4) develop written procedures for the laundering of linen and washable goods.

(e) Soiled and clean linen shall be handled and stored separately.

(f) All garbage and waste shall be collected, stored, and disposed of in a manner that does not encourage the transmission of contagious disease. Containers shall be washed and sanitized before

being returned to work areas, or the containers may be disposable.

(g) Staff shall make periodic checks, according to the facility's policies and procedures, throughout the premises to enforce sanitation procedures.

(h) Sterilizing supplies and equipment. The governing authority shall establish written policies and procedures for the storage, maintenance, and distribution of supplies and equipment.

(1) Sterile supplies and equipment shall not be mixed with unsterile supplies and shall be stored in dustproof and moisture-free units. These sterile units shall be labeled.

(2) Sterilizers and autoclaves shall be provided, of the appropriate type and necessary capacity, to sterilize instruments, utensils, dressings, water, and operating and delivery room materials, as well as laboratory equipment and supplies. The sterilizers shall have approved control and safety features. The accuracy of instruments shall be checked, and surveillance methods, according to the facility's policies and procedures, for checking sterilization procedures shall be employed.

(3) The date of sterilization or date of expiration shall be marked on all sterile supplies, and unused items shall be resterilized in accordance with written policies. (Authorized by and implementing K.S.A. 65-431; effective April 20, 2001.)

28-34-59. (Authorized by K.S.A. 1973 Supp. 65-431; effective Jan. 1, 1974; revoked April 20, 2001.)

28-34-59a. Ancillary services. (a) The ambulatory surgical center shall provide, either directly or through agreement, laboratory, radiology, and pharmacy services to meet the needs of the patients.

(b) Laboratory services. If the ambulatory surgical center provides its own clinical laboratory services, the following criteria shall be met:

(1) The laboratory performing analytical tests within the ambulatory surgical center shall hold a valid CLIA certificate for the type and complexity of all tests performed.

(2) An authorized individual shall, through written or electronic means, request all tests performed by the laboratory. The individual or individuals serving as the laboratory's clinical consultant or consultants shall be as defined in 42 C.F.R. 493.1417(b), as in effect on October 1, 1996 and hereby adopted by reference.

(3) The original report or duplicate copies of written tests, reports, and supporting records shall be retained in a retrievable form by the laboratory for at least the following periods:

(A) Two years for routine test reports;
(B) five years for blood banking test reports;
and

(C) 10 years for histologic or cytologic test reports.

(4) Facilities for procurement, safekeeping, and transfusion of blood, blood products, or both shall be provided or available. If blood products or transfusion services are provided by sources outside the ambulatory surgical center, outside sources shall be provided by a CLIA-certified laboratory. The source shall be certified for the scope of testing performed or products provided.

(c) If the ambulatory surgical center contracts for laboratory services, the center shall have a written agreement with that CLIA-certified laboratory.

(d) Radiology services. If the ambulatory surgical center provides its own radiology services, the services shall meet the requirements specified in K.S.A. 48-1607, and amendments thereto.

(e) The ambulatory surgical center staff shall meet the following standards:

(1) Allow only trained and qualified individuals to operate radiology equipment;

(2) document annual checks and calibration of all radiology equipment and maintain records of such;

(3) ensure that all radiology and diagnostic services are provided only on the order of a physician; and

(4) document the presence of signed and dated clinical reports of the radiological or diagnostic findings in the patient's record.

(f) If the ambulatory surgical center contracts for radiology services, it shall have a written agreement with a medicare-approved radiology provider or supplier.

(g) Pharmacy services. Each ambulatory surgical center shall provide pharmaceutical services that are appropriate for the services offered by the ambulatory surgical center.

(h) The pharmaceutical service shall be under the direction of an individual designed responsible for the service and shall be provided in accordance with K.A.R. 68-7-11.

(i) Policies and procedures. There shall be policies and procedures developed by a pharmacist, and approved by the governing authority, related to the following:

- (1) Storage of drugs;
- (2) security of drugs;
- (3) labeling and preparation of drugs;

(4) administration of drugs; and

(5) disposal of drugs.

(j) All drugs and biologicals shall be ordered pursuant to a written order issued by a licensed physician.

(k) Each adverse drug reaction shall be reported to the physician responsible for the patient and shall be documented in the patient's record.

(l) Drugs requiring refrigeration shall be stored in a refrigerator that is used only for drug storage.

(m) Quality assurance. There shall be a mechanism for the ongoing review and evaluation of the quality and scope of radiological, laboratory, and pharmacy services. (Authorized by and implementing K.S.A. 65-431; effective April 20, 2001.)

28-34-60. (Authorized by K.S.A. 1973 Supp. 65-431; effective Jan. 1, 1974; revoked April 20, 2001.)

28-34-60a. Food services. (a) Food service and food service policies and procedures shall reflect the level of services offered to meet the needs of the patients.

(b) The food and nutritional needs of patients shall be met in accordance with physician's orders.

(c) There shall be written policies for food storage, preparation, and service. Policies shall meet the following standards:

(1) There shall be a separate storage area above the floor level for food.

(2) Food transportation equipment shall be cleaned and disinfected daily or after each use if uneaten food or unclean dishes are transported.

(3) There shall be separate hand-washing facilities in the food preparation and service area.

(4) The temperature in each food freezer shall be no higher than 0° Fahrenheit.

(5) Dishes and utensils shall be washed in water at 140° Fahrenheit and shall be rinsed at 180° Fahrenheit, or a ware-washing machine and its auxiliary components shall be operated in accordance with the machine's data plate and any other manufacturer's instructions.

(6) Foods being transported shall be protected from contamination and held at required temperatures in clean containers or serving carts.

(7) Except during preparation, cooking, or cooling, potentially hazardous food shall be maintained at or above 140° Fahrenheit or at or below 41° Fahrenheit.

(8) Storage of toxic agents shall be prohibited in food preparation and food serving areas.

(9) Food returned on patients' trays shall not be reused. (Authorized by and implementing K.S.A. 65-431; effective April 20, 2001.)

28-34-61. (Authorized by K.S.A. 1973 Supp. 65-431; effective Jan. 1, 1974; revoked April 20, 2001.)

28-34-61a. Physical environment. (a) Each ambulatory surgical center shall be designed, constructed, equipped, and maintained to protect the health and safety of patients, staff, and visitors.

(b) Each ambulatory surgical center shall include the following features:

- (1) A separate recovery area and waiting area;
- (2) business office facilities;
- (3) storage areas designated for janitorial supplies and equipment; and
- (4) separate toilet facilities designated for patients, staff, and visitors.

(c) Equipment.

(1) Patient resuscitation and suction equipment shall be available in the surgical area at all times.

(2) All equipment shall be clean, functional, and maintained in accordance with the manufacturer's instruction.

(3) Each fire extinguisher shall be the type approved by underwriters laboratories. Extinguishers shall be inspected and tagged annually to assure that nothing has been tampered with or moved from designated areas. All extinguishers shall be functional.

(d) Fire and disaster drills. Each ambulatory surgical center shall meet the following requirements:

(1) Develop a written fire evacuation plan. Drills shall be held according to the facility's policies and procedures to prepare employees for evacuation of patients, staff, and visitors during a fire emergency. A record of each drill shall be kept on file.

(2) Develop a written plan for addressing the safety of patients, staff, and visitors during disasters. Periodic drills shall be held, and a record of each drill shall be kept on file.

(e) Smoking shall be prohibited in each ambulatory surgical center, and "no smoking" signs shall be posted in accordance with K.S.A. 21-4017, and amendments thereto.

(f) Use of space. The physical space licensed as an ambulatory surgical center shall be separate from any physician's office. (Authorized by and

implementing K.S.A. 65-431; effective April 20, 2001.)

28-34-62. (Authorized by and implementing K.S.A. 65-431; effective Jan. 1, 1974; amended June 12, 1979; revoked May 1, 1986.)

28-34-62a. Construction standards. (a) General provisions. All ambulatory surgical center construction, including new buildings and additions or alterations to existing buildings, shall be in accordance with standards set forth in sections 1, 2, 3, 4, 5, 6, and subsections 9.1, 9.2, 9.5, 9.9, 9.10, 9.31, and 9.32 in the American institute of architects academy of architecture for health publication no. ISBN 1-55835-151-5, entitled "1996-97 guidelines for design and construction of hospital and health care facilities," copyrighted in 1996, and hereby adopted by reference.

(b) Provisions for handicapped. All construction shall be in compliance with K.S.A. 58-1301 et seq., and amendments thereto.

(c) Construction plans and specifications.

(1) Plans and specifications for each new ambulatory surgical center and each alteration and addition to any existing ambulatory surgical center, other than minor alterations, shall be prepared by an architect licensed in Kansas and shall be submitted to the licensing department before beginning construction. "Minor alterations" means those projects that do not affect the structural integrity of the building, do not change functional operation, and do not affect fire safety.

(2) Plans shall be submitted at the preliminary plan and outline specification stage.

(3) The preliminary plans shall include the following information:

(A) Sketch plans of the basement, each floor, and the roof indicating the space assignment, size, and outline of fixed equipment;

(B) all elevations and typical sections;

(C) a plot plan showing roads and parking facilities; and

(D) areas and bed capacities by floors.

(4) Outline specifications shall consist of a general description of the construction, air conditioning, heating, and ventilation systems.

(5) Contract documents and final plans shall be prepared by the architect and consist of working drawings that are complete and adequate for bidding, contract, and construction purposes. Specifications shall supplement the drawings to fully describe the types, sizes, capacities, workmanship, finishes, and other characteristics of all materials

and equipment. Contract documents shall be submitted to the licensing department, if requested. The architect shall certify that contract documents and final plans are in compliance with subsections (a) and (b) of this regulation.

(d) Access. Representatives of the licensing department shall, at all reasonable times, have access to work in preparation or progress, and the contractor shall provide proper facilities for this access and inspection. A complete set of plans and specifications shall be available on the job site for use by licensing department personnel. (Authorized by and implementing K.S.A. 65-431; effective May 1, 1986; amended, T-87-51, Dec. 19, 1986; amended May 1, 1987; amended Dec. 29, 1995; amended April 20, 2001.)

28-34-63 to 28-34-74. Reserved.

PART 3.—RECUPERATION CENTERS

28-34-75. (Authorized by K.S.A. 1973 Supp. 65-431; effective Jan. 1, 1974; revoked March 23, 2001.)

28-34-76. (Authorized by K.S.A. 1979 Supp. 65-428, 65-429, 65-431; effective Jan. 1, 1974; amended May 1, 1980; revoked March 23, 2001.)

28-34-77 through 28-34-93. (Authorized by K.S.A. 1973 Supp. 65-431; effective Jan. 1, 1974; revoked March 23, 2001.)

28-34-94. (Authorized by K.S.A. 1979 Supp. 65-431; effective Jan. 1, 1974; amended, E-80-8, June 12, 1979; amended May 1, 1980; revoked, T-87-51, Dec. 19, 1986; revoked May 1, 1987.)

PART 4.—CONSTRUCTION STANDARDS

28-34-94a. (Authorized by and implementing K.S.A. 65-431; effective, T-87-51, Dec. 19, 1986; effective May 1, 1987; revoked March 23, 2001.)

28-34-95 to 28-34-124. Reserved.

28-34-125. (Authorized by and implementing K.S.A. 65-431; effective May 1, 1987; revoked June 28, 1993.)

Article 35.—RADIATION

28-35-1 to 28-35-28. Reserved.

28-35-29 to 28-35-31. (Authorized by

K.S.A. 48-1607; effective Jan. 1, 1966; revoked Jan. 1, 1970.)

28-35-32. (Authorized by K.S.A. 48-1607; effective Jan. 1, 1966; amended Jan. 1, 1967; revoked Jan. 1, 1970.)

28-35-33 to 28-35-38. (Authorized by K.S.A. 48-1607; effective Jan. 1, 1966; revoked Jan. 1, 1970.)

28-35-39. (Authorized by K.S.A. 48-1607, 48-1611; effective Jan. 1, 1966; revoked Jan. 1, 1970.)

28-35-40 to 28-35-53. (Authorized by K.S.A. 48-1607; effective Jan. 1, 1966; revoked Jan. 1, 1970.)

28-35-54. (Authorized by K.S.A. 48-1607; effective Jan. 1, 1966; amended Jan. 1, 1967; revoked Jan. 1, 1970.)

28-35-55. (Authorized by K.S.A. 48-1607; effective Jan. 1, 1966; revoked Jan. 1, 1970.)

28-35-56. (Authorized by K.S.A. 48-1607; effective Jan. 1, 1966; amended Jan. 1, 1967; revoked Jan. 1, 1970.)

28-35-57. (Authorized by K.S.A. 48-1607; effective Jan. 1, 1966; revoked Jan. 1, 1970.)

28-35-58 and 28-35-59. (Authorized by K.S.A. 48-1607; effective Jan. 1, 1966; amended Jan. 1, 1967; revoked Jan. 1, 1970.)

28-35-60 to 28-35-70. (Authorized by K.S.A. 48-1607; effective Jan. 1, 1966; revoked Jan. 1, 1970.)

28-35-71. (Authorized by K.S.A. 48-1607; effective Jan. 1, 1966; amended Jan. 1, 1967; revoked Jan. 1, 1970.)

28-35-72. (Authorized by K.S.A. 48-1607; effective Jan. 1, 1966; revoked Jan. 1, 1970.)

28-35-73 and 28-35-74. (Authorized by K.S.A. 48-1607; effective Jan. 1, 1966; amended Jan. 1, 1967; revoked Jan. 1, 1970.)

28-35-75 to 28-35-81. (Authorized by K.S.A. 48-1607; effective Jan. 1, 1966; revoked Jan. 1, 1970.)

28-35-82. (Authorized by K.S.A. 48-1607; effective Jan. 1, 1966; amended Jan. 1, 1967; revoked Jan. 1, 1970.)

28-35-83 to 28-35-93. (Authorized by